SUPREME COURT OF THE UNITED STATES.

Nos. 131 and 132.—October Term, 1928.

The St. Louis and O'Fallon Railway Company and Manufacturers' Railway Company, Appellants, 131 *vs.* The United States of America and The Interstate Commerce Commission.	Appeal from the District Court of the United States for the Eastern District of Missouri.
The United States of America and The Interstate Commerce Commission, Appellants, 132 *vs.* The St. Louis and O'Fallon Railway Company and Manufacturers' Railway Company.	

[May 20, 1929.]

Mr. Justice McReynolds delivered the opinion of the Court.

These are cross appeals from the final decree of the District Court, Eastern Missouri,—three judges sitting—in a suit to annul an Interstate Commerce Commission order, dated February 15, 1927, which directed St. Louis and O'Fallon Railway Company to place in a reserve fund one-half of its determined excess income for the years 1920 (ten months), 1921, 1922 and 1923 (that is half of the sum by which the net railway operating income for each of those years exceeded six per cent of the ascertained value of property devoted to public service); and to pay to the Commission the remaining one-half with six per cent interest beginning four months after termination of the year, i. e., May 1, 1921, 1922, 1923 and 1924.

Section 15a, added to the Interstate Commerce Act by Transportation Act, 1920, contains nineteen paragraphs. Of those spe-

cially important here, 1, 2, 3, 5, 7 and 8 are copied in the margin;* 4 and 6 follow:—

"(4) For the purpose of this section, such aggregate value of the property of the carriers shall be determined by the Commission from time to time and as often as may be necessary. The Commission may utilize the results of its investigation under section 19a of this Act, in so far as deemed by it available, and shall give due consideration to all the elements of value recognized by the law of the land for rate-making purposes, and shall give to the property investment account of the carriers only that consideration which under such law it is entitled to in establishing values for rate-making purposes. Whenever pursuant to section 19a of this Act the value of the railway property of any carrier held for and used in the service of transportation has been finally ascertained, the value so ascertained shall be deemed by the Commission to be the value thereof for the purpose of determining such aggregate value."

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*"Section 15a. (1) [This defines the terms employed.]

"(2) In the exercise of its power to prescribe just and reasonable rates the Commission shall initiate, modify, establish or adjust such rates so that carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management and reasonable expenditures for maintenance of way, structures and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation: *Provided*, That the Commission shall have reasonable latitude to modify or adjust any particular rate which it may find to be unjust or unreasonable, and to prescribe different rates for different sections of the country.

"(3) The Commission shall from time to time determine and make public what percentage of such aggregate property value constitutes a fair return thereon, and such percentage shall be uniform for all rate groups or territories which may be designated by the Commission. In making such determination it shall give due consideration, among other things, to the transportation needs of the country and the necessity (under honest, efficient and economical management of existing transportation facilities) of enlarging such facilities in order to provide the people of the United States with adequate transportation: *Provided*, That during the two years beginning March 1, 1920, the Commission shall take as such fair return a sum equal to 5½ per centum, of such aggregate value, but may, in its discretion, add thereto a sum not exceeding one-half of one per centum of such aggregate value to make provision in whole or in part for improvements, betterments or equipment,

"(6) If, under the provisions of this section, any carrier receives for any year a net railway operating income in excess of 6 per centum of the value of the railway property held for and used by it in the service of transportation, one-half of such excess shall be placed in a reserve fund established and maintained by such carrier, and the remaining one-half thereof shall, within the first four months following the close of the period for which such computation is made, be recoverable by and paid to the Commission for the purpose of establishing and maintaining a general railroad contingent fund as hereinafter described. For the purposes of this paragraph the value of the railway property and the net railway operating income of a group of carriers which the Commission finds are under common control and management and are operated as a single system, shall be computed for the system as a whole irrespective of the separate ownership and accounting returns of the various parts of such system. In the case of any carrier which

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which, according to the accounting system prescribed by the Commission, are chargeable to capital account.

"(5) Inasmuch as it is impossible (without regulation and control in the interest of the commerce of the United States considered as a whole) to establish uniform rates upon competitive traffic which will adequately sustain all the carriers which are engaged in such traffic and which are indispensable to the communities to which they render the service of transportation, without enabling some of such carriers to receive a net railway operating income substantially and unreasonably in excess of a fair return upon the value of their railway property held for and used in the service of transportation, it is hereby declared that any carrier which receives such an income so in excess of a fair return, shall hold such part of the excess, as hereinafter prescribed, as trustee for, and shall pay it to, the United States.

"(7) For the purpose of paying dividends or interest on its stocks, bonds or other securities, or rent for leased roads, a carrier may draw from the reserve fund established and maintained by it under the provisions of this section to the extent that its net railway operating income for any year is less than a sum equal to 6 per centum of the value of the railway property held for and used by it in the service of transportation, determined as provided in paragraph (6); but such fund shall not be drawn upon for any other purpose.

"(8) Such reserve fund need not be accumulated and maintained by any carrier beyond a sum equal to 5 per centum of the value of its railway property determined as herein provided, and when such fund is so accumulated and maintained the portion of its excess income which the carrier is permitted to retain under paragraph (6) may be used by it for any lawful purpose."

has accepted the provisions of section 209 of this amendatory Act the provisions of this paragraph shall not be applicable to the income for any period prior to September 1, 1920. The value of such railway property shall be determined by the Commission in the manner provided in paragraph (4)."

After an investigation instituted under Section 15a, May 14, 1924, for the purpose of determining incomes received by St. Louis and O'Fallon Railway Company (The O'Fallon) and Manufacturers' Railway Company (The Manufacturers'), asserted to be parts of one system, for the years 1920-1923, the Commission found:—(1) Although the stock of both corporations was mostly owned by the Adolph Busch Estate and their principal officers were the same, they were not carriers operated under common control and management as a single system within paragraph 6. (2) The Manufacturers' had received no excess operating income. (3) The value of The O'Fallon's property devoted to public service in 1920 (ten months) was $856,065; in 1921, $875,360; in 1922, $978,874; in 1923, $997,236; and during each of those years it received net operative income exceeding six per cent upon the stated valuation.

The above-described recapture order followed.

The cause is properly here under the Judicial Code, as amended by Act of February 13, 1925, (U. S. C., Title 28, Sec. 345)—

"Sec. 238. A direct review by the Supreme Court of an interlocutory or final judgment or decree of a district court may be had where it is so provided in the following Acts or parts of Acts, and not otherwise: . . . .

"(4) So much of 'An Act making appropriations for the fiscal year 1913, and for other purposes,' approved October 22, 1913, as relates to the review of interlocutory and final judgments and decrees in suits to enforce, suspend, or set aside orders of the Interstate Commerce Commission other than for the payment of money. . . ."

The Act of October 22, 1913, (38 Stat. 219, 220) transferred to District Courts the jurisdiction granted to the Commerce Court by Act of June 18, 1910, (36 Stat. 539), and provided for review by this Court of causes embraced therein. The jurisdiction of the Commerce Court included—

"First. All cases for the enforcement, otherwise than by adjudication and collection of a forfeiture or penalty or by

infliction of criminal punishment, of any order of the Interstate Commerce Commission other than for the payment of money.

"Second. Cases brought to enjoin, set aside, annul, or suspend in whole or in part any order of the Interstate Commerce Commission. . . ."

Paragraph (4), Section 238, applies to all those causes formerly cognizable by the Commerce Court and reviewable here. The words "other than for the payment of money" were taken from clause First, Act of 1910, above quoted, and, as there, they delimit the trial court's jurisdiction. They do not inhibit review here of any cause formerly cognizable by the Commerce Court. Moreover, the order under consideration was not merely for payment of money; and the proceeding below was to set aside, not to enforce it.

Wisconsin Railroad Commission v. *Chicago, Burlington & Quincy R. R. Co.*, 257 U. S. 563, and *Dayton-Goose Creek Railway Co.* v. *The United States*, 263 U. S. 456, point out the general purpose of the Transportation Act, 1920, and uphold the validity of Section 15a.

The Manufacturers' is a switching road with thirty miles of track within St. Louis, Missouri. The O'Fallon—a coal-carrying road—has nine miles of main line, all in Illinois, and this connects with The Terminal Railroad at East St. Louis. Through the latter deliveries are made to sundry points in St. Louis, some of which are on The Manufacturers' line. "The distance between the railroad of the O'Fallon and the railroad of the Manufacturers' is about 12 miles, and all communication by rail between the two properties is effected over the tracks of the Terminal, including a bridge over the Mississippi River." Both the Commission and the District Court held that the record failed to show these two roads were under common control and management and operated as a single system within the meaning of paragraph 6. We accept their conclusion.

The Commission directed The O'Fallon to pay 6% interest on the recaptured one-half of its ascertained excess net railway operating income beginning four months from the end of the year during which the excess accrued (Sec. 6). The District Court rightly ruled that as the carrier made bona fide denial of any excess under circumstances sufficient to justify a contest, no interest should have

been imposed for any time prior to the final order. Not until then could the carrier know what, if anything, it should pay.

Also, we think the District Court rightly rejected the claim that excess earnings were not recapturable unless and until the Commission had fixed a general level of rates intended to yield fair return upon the aggregate value of carrier property either as a whole, or in some prescribed rate or territorial group. Congress, of course, realized that final valuations would require prodigious expenditure of time and effort; but the language concerning recapture indicates that prompt action was expected. Practical application of paragraphs 5 and 6 does not necessarily depend upon prior compliance with paragraphs 2 and 3. The Act should be construed so as to carry out the legislative purpose. The proviso of paragraph 3 prescribing action to be taken during two years beginning March 1, 1920, and the clause of paragraph 6 excepting the income of certain roads prior to September 1, 1920, are hardly compatible with this claim by the carrier.

Paragraph 4, Section 15a, directs that in determining values of railway property for purposes of recapture the Commission "shall give due consideration to all the elements of value recognized by the law of the land for rate-making purposes, and shall give to the property investment account of the carriers only that consideration which under such law it is entitled to in establishing values for rate-making purposes." This is an express command; and the carrier has clear right to demand compliance therewith. *United States ex rel. Kansas City Southern Railway Co.* v. *Interstate Commerce Commission*, 252 U. S. 178.

"The elements of value recognized by the law of the land for rate-making purposes" have been pointed out many times by this Court. *Smyth* v. *Ames*, 169 U. S. 466; *Wilcox* v. *Consolidated Gas Co.*, 212 U. S. 19; *Minnesota Rate Cases*, 230 U. S. 352; *Southwestern Bell Telephone Co.* v. *Public Service Commission*, 262 U. S. 276; *Bluefield Water Works & Improvement Co.* v. *Public Service Commission*, 262 U. S. 679; *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400. Among them is the present cost of construction or reproduction.

Thirty years ago, *Smyth* v. *Ames* announced (546):

> "We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the

fair value of the property being used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth."

In *Southwestern Bell Telephone Co.* v. *Public Service Commission*, (287) we said: "It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for tomorrow cannot ignore prices of today."

The doctrine above stated has been consistently adhered to by this Court.

The report of the Commission is long and argumentative. Much of it is devoted to general observations relative to the method and purpose of making valuations; many objections are urged to doctrine approved by us; and the superiority of another view is stoutly asserted. It carefully refrains from stating that any consideration whatever was given to present or reproduction costs in estimating the value of the carrier's property. Four dissenting Commissioners declare that reproduction costs were not considered; and the report itself confirms their view. Two of the majority avow a like understanding of the course pursued.

The following from the dissenting opinion of Commissioner Hall, concurred in by three others, accurately describes the action of the Commission:—

> "In order to determine the value of the O'Fallon property devoted to carrier service during the recapture periods, 10 months in the year 1920 and the years 1921, 1922, and 1923, we start with a valuation or inventory date of June 30, 1919. The units in existence on that date are known. Original cost of the entire property can not be ascertained. As to the man-made units we estimate the cost of reproducing them in their condition on that date and in so doing apply to the units installed prior to June 30, 1914, the unit prices of 1914, representing a fairly consistent price level for the preceding 5 or 10 years. To like units, installed after June 30, 1914, and prior to June 30, 1919, we apply the same prices, but add a sum representing price increases on those units during that period. For the third period, from June 30, 1919, down to each recapture date, we abandon estimate and turn to recorded net cost of additions less retirements. On this composite, made up of estimated value for two periods and ascertained net cost for the third period, the majority base a conclusion as to value at recapture date of the man-made items. Land goes in at its current value as measured by that of neighboring lands.
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> "Without summarizing the other processes, all clearly stated in the majority report, it will be observed that the rate-making value arrived at for the successive recapture periods, as for example the year 1923, rests upon 1923 market value of lands; costs of other property installed since June 30, 1919; unit prices of 1914, enhanced by allowance for increased cost of units installed during June 30, 1914-1919; and, for the units installed prior to June 30, 1914, constituting by far the major part of the property, unit prices of 1914 without any enhancement whatever. As to this major part of the carrier's property devoted to carrier purposes in 1923 no consideration is given to costs and prices then obtaining or to increase therein since 1914."

In the exercise of its proper function this Court has declared the law of the land concerning valuations for rate-making purposes. The Commission disregarded the approved rule and has thereby

failed to discharge the definite duty imposed by Congress. Unfortunately, proper heed was denied the timely admonition of the minority—"The function of this commission is not to act as an arbiter in economics, but as an agency of Congress, to apply the law of the land to facts developed of record in matters committed by Congress to our jurisdiction."

The question on which the Commission divided is this: When seeking to ascertain the value of railroad property for recapture purposes, must it give consideration to current, or reproduction, costs? The weight to be accorded thereto is not the matter before us. No doubt there are some, perhaps many, railroads the ultimate value of which should be placed far below the sum necessary for reproduction. But Congress has directed that values shall be fixed upon a consideration of present costs along with all other pertinent facts; and this mandate must be obeyed.

It was deemed unnecessary by the Court below to determine whether the Commission obeyed the statutory direction touching valuations since the order permitted The O'Fallon to retain an income great enough to negative any suggestion of actual confiscation. With this we cannot agree. Whether the Commission acted as directed by Congress was the fundamental question presented. If it did not, the action taken, being beyond the authority granted, was invalid. The only power to make any recapture order arose from the statute.

The judgment of the court below must be reversed. A decree will be entered here annulling the challenged order.

Reversed.

Mr. Justice BUTLER took no part in the consideration or determination of this cause.

A true copy.

Test:

Clerk, Supreme Court, U. S.

SUPREME COURT OF THE UNITED STATES.

Nos. 131 and 132.—October Term, 1928.

	The St. Louis and O'Fallon Ry. Co., et al., Appellants	Appeal from the District Court of the United States for the Eastern Division of the Eastern District of Missouri.
131	*vs.*	
	United States et al.	
	United States et al.,	
132	*vs.*	
	The St. Louis and O'Fallon Ry. Co., et al.	

[May 20, 1929.]

Mr. Justice Brandeis, dissenting.

The main question for consideration is that of statutory construction. By Transportation Act, 1920, February 28, 1920, c. 91, § 15a, 41 Stat. 456, 488, Congress delegated to the Interstate Commerce Commission the duty to establish and maintain rates which will yield "a fair return upon the aggregate value of the railway property" of the United States. By paragraph 4 thereof, it directs that in ascertaining value the Commission shall "give due consideration to all the elements of value recognized by the law of the land for rate-making purposes;" and shall "give to the property investment account only that consideration which under such law it is entitled to in establishing values for rate-making purposes." The report of the Commission, which accompanies the order challenged, declares: "In the methods of valuation which we have followed in this proceeding we have endeavored to give heed to this direction [that contained in paragraph 4] . . ." *Excess Income of St. Louis and O'Fallon Ry. Co.*, 124 I. C. C. 3, 19. Speaking for the dissenting members, Mr. Commissioner Hall said: "If the law needs change, let those who made it change it. Our duty is to apply the law as it stands." (pp. 63, 64.) And Mr. Commissioner Atchison added: "If we anticipate grave results will follow, our responsibility will be fully met if we suggest to the Congress, under our statutory powers to recommend new legislation to that

body, the enactment of a rule for rate making under the commerce clause which will have no such unfavorable effects." (p. 64.)

Section 15a makes no specific reference either to the original cost of the property, or to prudent investment, or to current reproduction cost, or to the then existing price level. Section 19 (a) (the valuation provisions of the Act of 1913), to which § 15a refers, directs the Commission to report, among other things, "in detail as to each piece of property, . . . the original cost to date, the cost of reproduction new, the cost of reproduction less depreciation"; and also "other values, and elements of value." After the enactment of § 15a and before entry of the order challenged, it was held in *Southwestern Bell Telephone Co.* v. *Public Service Commission*, 262 U. S. 276, a case arising under a state law, that the rate-base on which a public utility is constitutionally entitled to earn a fair return is the then actual value of the property used and useful in the business, not the original cost or the amount prudently invested in the enterprise. The Government concedes that current reproduction cost is admissible as evidence to show present value under § 15a. The carrier concedes now that neither Congress, nor the common law, made current reproduction cost the measure of value. The question on which the Commission divided is this: Did Congress require the Commission when acting under § 15a to give, in all cases and in respect to all property, some, if not controlling, effect to evidence establishing the estimated current cost of reproduction? Or did Congress intend to leave to the Commission the authority to determine, as in passing upon other controverted issues of fact, what weight, if any, it should give to that evidence?

The O'Fallon contends, among other things, that the order is confiscatory. The claim is that the order left to the company a return of only 4.35 per cent upon the value ascertained in accordance with the rule declared in the *Southwestern Bell* case and *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400. If this were true, it would be immaterial whether Congress purported to authorize the course pursued by the Commission. But the fact is that, in each of the recapture periods, the earnings were so large as to leave, after making the required payments to the Commission, about 8 per cent on what the carrier alleged was the fair value of the property. The O'Fallon argues that, since the statute and the order required it to hold as a reserve one half of the excess over 6 per cent, it is deprived of that property. This is not true. The requirement

that one-half of the earnings in excess of 6 per cent shall be retained by the carrier until the reserve equals 5 per cent of the value of the railroad does not deprive the carrier of any property. It merely regulates the use thereof. Compare *Kansas City Southern Ry. Co.* v. *United States*, 231 U. S. 423, 453. The provision is one designed to secure financial stability; and is similar to those prescribing sinking funds, depreciation, and other appropriate accounts.[1] Congress may regulate the use of railroad property so as to ensure financial as well as physical stability. Both are essential to the safety and the service of the public. In *Dayton-Goose Creek Ry. Co.* v. *United States*, 263 U. S. 456, 486, where the facts were in this respect identical with those in the case at bar, the constitutional validity of the order was sustained. If the failure to give to the evidence of current reproduction costs the effect claimed for it by the O'Fallon was error, it is not because the carrier's constitutional rights have been invaded, but because the Commission failed to observe a rule prescribed by Congress for determining the amounts to be recaptured and reserved.

The claim of the O'Fallon is in substance that, since construction costs were higher during the recapture periods than in 1914, the order should be set aside, because the Commission failed to find that the existing structural property and equipment which had been acquired before June 30, 1914 was worth more than it had been then.[2] The Commission undertook, as will be shown, to find present actual value and, in so doing, both to follow the direction of Congress and to apply the rule declared in the *Southwestern Bell* case. It is true that this Court there declared that current reconstruction cost is an element of actual value; and that Congress directed the Commission "to give due consideration to all the elements of value

[1]See Report of Senate Committee reporting S. 3288, Report No. 307, p. 19, 66th Congress, 1st Session: "The Company reserve fund may be drawn upon by the carrier whenever its annual railway operating income falls below 6 per cent of the value of the property. The reserve fund is, of course, the absolute property of the carrier; and the purpose in requiring it to be established and maintained is to give stability to the credit of the carrier and enable it to render more efficiently the public service in which it is engaged."

[2]The complaint concerns all the structural property and equipment acquired before June 30, 1919. But, as nearly all of this had been installed before July 1, 1914, the discussion is limited to the property acquired before June 30, 1914—the valuation being made on the basis of construction costs as of that date.

recognized by the law of the land for rate making purposes". But, while the Act required the Commission to consider all such evidence, neither Congress nor this Court required it to give to evidence of reconstruction cost a mechanical effect or artificial weight. They left untrammeled its duty to give to all relevant evidence such probative force as, in its judgment, the evidence inherently possesses. The Commission concluded that in respect to the evidence of reproduction costs the differences between the *Southwestern Bell* case and that at bar were such as to lead to different results in the two cases. It did so mainly because "in the administration of the valuation and recapture provisions," ascertainment of value "is affected by a vast variety of considerations that either do not enter into, or are less easily perceived in, problems incident to the regulation of local public utilities." (p. 27.) In my opinion the conclusions of the Commission are well founded. To make clear the reasons, requires consideration of the function of the Commission in applying § 15a and of the problems with which it is confronted.

First. The Commission is a fact-finding body. The question whether it must give to confessedly relevant facts evidential effect is solely one of adjective law. Statutes have sometimes limited the weight or effect of evidence. They have often created rebuttable presumptions and have shifted the burden of proof. But no instance has been found where under our law a fact-finding body has been required to give to evidence an effect which it does not inherently possess. Proof implies persuasion. To compel the human mind to infer in any respect that which observation and logic tells us is not true interferes with the process of reasoning of the fact-finding body. It would be a departure from the unbroken practice to require an artificial legal conviction where no real conviction exists.[3]

An arbitrary disregard by the Commission of the probative effect of evidence would, of course, be ground for setting aside an order, as this would be an abuse of discretion. Orders have been set aside because entered without evidence;[4] or because matters of fact had

[3]Compare Best on Evidence (seventh English edition) §§ 69, 70; Manley v. Georgia, 279 U. S. —.

[4]See Interstate Commerce Commission v. Union Pacific R. R., 222 U. S. 541, 547; Interstate Commerce Commission v. Louisville & Nashville R. R., 227 U. S. 88, 92; Florida East Coast Ry. v. United States, 234 U. S. 167; New England Divisions Case, 261 U. S. 184, 203.

been considered which were not in the record;[5] or because the Commission excluded from consideration facts and circumstances which ought to have been considered;[6] or because it took into consideration facts which could not legally influence its judgment.[7] But no case has been found in which this Court has set aside an order on the ground that the Commission failed to give effect to evidence which seemed to the Court to be of probative force, or on the ground that the Commission had drawn from the evidence an inference or conclusion deemed by the Court to be erroneous.[8] On the contrary, findings of the Commission involving the appreciation or effect of evidence have been treated with the deference due to those of a tribunal "informed by experience" and "appointed by law" to deal with an intricate subject. *Illinois Central R. R. Co.* v. *Interstate Commerce Commission*, 206 U. S. 441, 454. Unless, therefore, Congress required the Commission, not only to consider evi-

[5]See Interstate Commerce Commission v. Louisville & Nashville R. R., 227 U. S. 88, 93; Chicago Junction Case, 264 U. S. 258, 263.

[6]See Texas & Pac. Ry. v. Interstate Commerce Commission, 162 U. S. 197; Interstate Commerce Commission v. Alabama Midland Ry., 168 U. S. 144; Interstate Commerce Commission v. Northern Pacific Ry., 216 U. S. 538.

[7]See Florida East Coast Line v. United States, 234 U. S. 167, 187; Central R. R. Co. v. United States, 257 U. S. 247.

[8]Alleged errors of the Interstate Commerce Commission in weighing evidence or drawing inferences therefrom have been urged as grounds for reversal in many cases. This Court has consistently held that the Commission's decisions as to such matters are not the proper subject for judicial review. See e. g., Cincinnati, &c. Ry. v. Interstate Commerce Commission, 206 U. S. 142, 154; Illinois Central R. R. v. Interstate Commerce Commission, 206 U. S. 441; Interstate Commerce Commission v. Illinois Central R. R., 215 U. S. 452, 470; Los Angeles Switching Case, 234 U. S. 294; United States v. New River Co., 265 U. S. 533; Western Chemical Co. v. United States, 271 U. S. 268; Virginian Ry. v. United States, 272 U. S. 658; Chi., R. I. & Pac. Ry. v. United States, 274 U. S. 29; Assigned Car Cases, 274 U. S. 564. The following excerpts from recent opinions succinctly express the Court's position in the matter:—"The courts will not review determinations of the Commission made within the scope of its powers or substitute their judgment for its findings and conclusions." United States v. New River Co., 265 U. S. 533, 542. "To consider the weight of the evidence is beyond our province." Western Chemical Co. v. United States, 271 U. S. 268, 271. "This Court has no concern with the correctness of the Commission's reasoning, with the soundness of its conclusions, or with the alleged inconsistency with findings made in other proceedings before it." Virginian Ry. v. United States, 272 U. S. 658, 665-666. "But if the determination of the commission finds substantial support in the evidence, the courts will not weigh the evidence nor consider the wisdom of the commission's action." Chicago, R. I. & Pac. Ry. v. United States, 274 U. S. 29, 33-34.

dence of reconstruction cost in ascertaining values for rate making purposes under § 15a, but also to give, in all cases and in respect to all property, some weight to evidence of enhanced reconstruction cost, even if that evidence was not inherently persuasive, the Commission was clearly authorized to determine for itself to what extent, if any, weight should be given to the evidence; and its findings should not be disturbed by the Court, unless it appears that there was an abuse of discretion.

Second. While current reproduction cost may be said to be an element in the present value of property, in the sense that it is "evidence properly to be considered in the ascertainment of value," *Standard Oil Co.* v. *Southern Pacific Co.*, 268 U. S. 146, 156, it is clear that current cost of reproduction higher than the original cost does not necessarily tend to prove a present higher value. Often the fact of higher reconstruction cost is without any influence on present values. It is common knowledge that the current market value of many office buildings and residences constructed prior to the World War have failed to reflect the greatly increased building costs of recent years, although the need of new buildings of like character was being demonstrated by the large volume of construction at the higher price level. Many railroads built before the World War have never been worth as much as their original cost, because high construction cost combined with adverse operating conditions and limited traffic have at all times prevented their earning, despite reasonable rates, a fair return on the original cost. The Puget Sound extension of the Chicago, Milwaukee and St. Paul is a notable example.* Many branches, and indeed whole lines

*The Puget Sound Extension of the Chicago, Milwaukee & St. Paul Railway was completed in 1909 at a cost of about $257,000,000. It earned, during fifteen years, little more than operating expenses. As late as 1925, its net operating income was "only about one-half of 1 per cent on this investment." Investigation of Chicago, Milwaukee & St. Paul Ry. Co., 131 I. C. C. 615, 617, 619, 621. The upset cash price fixed by the court in the foreclosure proceeding was $42,500,000. Guaranty Trust Co. v. Chicago, M. & St. P. Ry., 15 F. (2d) 434, 443.

Another striking example of the discrepancy often existing between market price or actual value, and reproduction cost is to be found in the case of the Detroit, Toledo & Ironton Railroad, which Mr. Ford purchased in 1920 for $6,800,000. It was said to have a physical value of between $16,000,000 and $20,000,000. Railway Age, Vol. 69.1, p. 152.

In an order granting, on March 8, 1929, the application of the Nashville, Chattanooga & St. Louis Ry. to abandon its Middle Tennessee & Alabama

of railroad, have been scrapped since 1920. Abandonment of 2,439 miles of railroad was authorized under paragraph 18 of § 1 of the Interstate Commerce Act between 1920 and 1925; and in the three following years 2,010 miles more.[10] These properties had, in the main, become valueless for transportation, either because traffic ceased to be available or because competitive means of transportation precluded the establishment of remunerative rail rates.[11] Obviously, no one would contend that their actual value just before abandonment was what it originally cost to construct them or what it would then have cost to reconstruct them.

Third. The terms of § 15a and its legislative history preclude the assumption that Congress intended by paragraph 4 to deny to the Commission in respect to evidence of reconstruction cost the discretion commonly exercised in determining what weight, if any, shall be given to an evidential fact. In 1920, no fact was more prominent in the mind of the public and of Congress than that the cost of living was far greater than that prevailing when the existing railroads were built.[12] But, neither in Transportation Act,

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branch, which had been in operation more than thirty years, the Interstate Commerce Commission said: "The applicant contends that the project was poorly conceived and doomed to failure from the outset." 150 I. C. C. 539, 540.

"But cost of reproduction obviously does not measure value in the sense of what a purchaser would pay for a property. Let the owners of the old Wabash Pittsburgh Terminal put their road upon the market to prove the truth of this assertion." Homer D. Vanderblue in Railway Age, 1920—Vol. 68.2, p. 1105.

[10]Motor Bus and Motor Truck Operation, 140 I. C. C. 685, 727. See Annual Reports of the Commission, 1921, p. 19; 1922, p. 219; 1923, p. 237; 1924, p. 253; 1925, p. 263; 1926, p. 286; 1927, p. 294; 1928, p. 298.

[11]Motor competition has to some extent been a factor in such abandonments. For instances arising since October 31, 1927, see Abandonment of Potato Creek R. R. Co., 131 I. C. C. 481, 482; Pennsylvania R. R. Co., 131 I. C. C. 547, 548; Grand Rapids and Indiana Ry. Co., 138 I. C. C. 345; Spokane, Coeur d'Alene & Palouse Ry. Co., 138 I. C. C. 722, 723; Illinois Traction, Inc., 145 I. C. C. 20; Western Maryland Ry. Co., 145 I. C. C. 232; Southern Ry. Co., 145 I. C. C. 355; St. Louis-San Francisco Ry. Co., 145 I. C. C. 379, 383; Pere Marquette Ry. Co., 145 I. C. C. 560, 561; Chicago, Rock Island & Pacific Ry. Co., 145 I. C. C. 698, 699; Southern Pacific Co., 145 I. C. C. 705, 707. Compare Hill City Ry. Co., 150 I. C. C. 159.

[12]Senator Cummins stated that the cost of living was then from 80 to 100 per cent above prewar prices. 59 Cong. Rec., Part I, p. 129. See, also, Senate Committee Hearings, Vol. 148, Part II, p. 277; House Committee Hearings, Vol. 232, Part I, pp. 376-377.

1920, nor in any Committee report, is there even a suggestion that the Commission would be required to give to that fact any effect in ascertaining values for rate making purposes under § 15a. If it had been the intention of Congress to compel the Commission to increase values for rate making purposes because the price level had risen, it would naturally have incorporated such a direction in the paragraph. On the other hand, the Committee reports and the debates show that the opinion was quite commonly held that the actual values were less than the property investment account appearing on the books of the carriers;[13] and the proposal made by the railroads that the investment account be accepted as the measure of value was resisted as being excessive.[14] The property investment account in 1920 was about 19 billions of dollars.[15] The

[13]Senator Cummins said "I think there are a great many instances in which the investment accounts are larger than any possible value that could be attributed to the property." 59 Cong. Rec., Part 1, p. 126. "My own judgment is, however, that the value of the properties is less than the aggregate investment accounts . . ." pp. 135-136. For other expressions of opinion to the same effect see pp. 224, 228, 905. Senator Cummins stated that the aggregate of the investment accounts was about $19,000,000,000. (p. 127.) See also p. 130. Compare Mr. Esch, 59 Cong. Rec., Part 4, p. 3269.

[14]The Commission says (124 I. C. C. 39): "In this connection it is significant that when the legislation of 1920, of which § 15a is a part, was under congressional consideration there was offered in behalf of the carriers a proposed bill in which their recorded investment in road and equipment was made the sole element in the determination of the rate base. It is also worthy of note that when the legislation of 1920 was under such consideration a representative of this commission on September 26, 1919, in response to a question, publicly informed the congressional committee that he knew of no warrant for an assumption 'that the commission will base the value of the property wholly or in part on present prices.'"

The investment in road and equipment as stated on the books of the Kansas City, Mexico and Orient R. R. Co. (of Kansas) as of June 30, 1919, was $22,190,935. The final valuation by the Commission as of that date was $6,453,528. After that date $1,064,782 was expended for additions and betterments, making a total value of $7,518,310. The Kansas City, Mexico & Orient of Texas (with expenditures for additions) was valued at $6,854,522. Kansas City, Mexico & Orient R. R. Co., 135 I. C. C. 217; Kansas City, Mexico & Orient Reorganization, 145 I. C. C. 339, 344. These properties, with an aggregate book value of $29,045,457 were valued by the Commission at $14,372,832 and, with 320 miles of road in Mexico added, were purchased by the Atchison, Topeka and Santa Fe R. R. for $14,507,500. See Control of Kansas City, Mexico & Orient Ry. Co., 145 I. C. C. 350.

[15]See note 13.

then reproduction cost of the railroads, applying index figures to estimated actual cost, was over 40 billions.[16] It is inconceivable that Congress, after rejecting property investment account as excessive, intended by § 15a to make mandatory on the Commission the consideration of elements which would give a valuation double that which had been rejected. The insertion in § 15a of the provision that the Commission "shall give to the property investment account of the carriers only that consideration which under the law it is entitled to in establishing values for rate making purposes" and the rejection of other proposed measures of value show that Congress intended not to impose restrictions upon the discretion of the Commission.[17]

Congress did intend to provide a return on the existing railroad property which should be only slightly more than that which had been enjoyed during the six preceding years. To have required that the then price level be reflected in the values to be fixed under § 15a would have resulted in a rate-base of double the property investment account of the carriers. For the cost of living was then about double prewar prices. The prescribed fair return applied to such a rate base would have produced more than double the average net earnings from operation of the several properties during the three years preceding federal control; more than double the amount which the carriers agreed to accept under the Federal Control Act, March 21, 1918, c. 25, § 1, 40 Stat. 451, as fair compensation for the use of their property; more than double the guarantee provided by Transportation Act, 1920, § 209, for the six months' period after the surrender of control. The sum which the railroads had thus earned net in those six years equalled 5.2 per cent on the property investment account, as carried on their books.

In making provision for a fair return, the main purpose was not to increase the earnings of capital already invested in railroads, but to attract the new capital needed for improvement or extension

[16]Excess Income of St. Louis and O'Fallon Ry. Co., 124 I. C. C. 3, 32.

[17]Contemporary opinion of the railroads to this effect was expressed in their behalf in the hearings held before the Interstate Commerce Commission on March 22-24, 1920 (Hearings, In re: § 422 of the Transportation Act, Ex parte 71, p. 134).

of facilities."* This was to be accomplished by raising the rate of return from 5.2 per cent to 5.5 per cent (Senate Reports, Vol. 1, No. 304, 66th Cong., 1st Sess.):

"The basis adopted by the Committee is three tenth of 1 per cent higher than the basis of the test period [the three years preceding June 30, 1917]; and assuming, though not conceding that the value of the property is equal to the property investment accounts, it will yield for all the railways a net operating income of $54,000,000 in excess of the income of the test period. There were two considerations which led the majority of the committee to believe that this increase is not only warranted but necessary:

"First. The railways are being returned to their owners when everything is unsettled and abnormal; when there is suspicion and distrust everywhere. Just what rate of return will enable the carriers to finance themselves under such conditions can not, with certainty be determined. It was felt, therefore, that some increase over the prewar period was justifiable.

"Second. As compared with all kinds of commodities, money is much less valuable than it was a few years ago, and it would seem to be only fair that the returns from railway investments should be reasonably advanced."

The means by which the bill was to accomplish the desired end are thus stated in the report:

"First: By prescribing a basis of return upon the value of the railway property, to give such assurance to investors as will incline them to look with favor upon railway securities; that is to say, by making a moderate return reasonably certain to establish credit for the carriers.

"Second: In making the return fairly certain to secure for the public a lower capital charge than would otherwise be necessary.

"Third: In requiring some carriers, which under any given body of rates will earn more than a fair return, to pay the excess to the Government and in so using this excess that transportation facilities or credit can be furnished to the weaker carriers, and thus help to maintain the general system of transportation."

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*"The writer of this report is firmly convinced that when the Government assumed the operation of the railways they were, taken as a whole, earning all that they should be permitted to earn; but, in the inevitable distribution of those earnings among the various railway companies, the railways which carried 30 per cent of the traffic were earning so little that they could not, by any economy or good management, sustain themselves." Senate Reports, No. 304, Vol. 1, 66th Cong., 1st Sess. A rate base which reflected the then increase in price levels over 1914 would have yielded about $700,000,000 more than the income of the test period.

Either increase in the rate of return or increase of the base on which that return is measured would have served to adjust compensation to higher price levels. The adoption by Congress of the increase in the return, as the means of compensating for the decreased purchasing power of the dollar, precludes the assumption that it intended that the valuation should reflect that lessened purchasing power. By explicitly choosing the former Congress implicitly rejected the latter.[19] For to have allowed an increase in both would have gone beyond adjusting earnings to increased costs and have made this increase a mere pretext for allowing unwarranted profits to the railroads. The proceedings which led to the passage of the Act make it clear that Congress intended no such result.

Fourth. The declared purpose of Congress in enacting § 15a was the maintenance of an adequate national system of railway transportation, capable of providing the best possible service to the public at the lowest cost consistent with full justice to the private owners. Following the course consistently pursued by this Court in applying other provisions of the Interstate Commerce Act, *Texas & Pacific Ry. Co.* v. *Interstate Commerce Commission*, 162 U. S. 197, 211, 219; *New England Divisions Case*, 261 U. S. 184, 189-190; *Dayton-Goose Creek Ry. Co.* v. *United States*, 263 U. S. 456, 478, the Commission construed § 15a in the light of the declared purpose of Congress and of the economic factors involved. From its wide knowledge of actual conditions and its practical experience in rate making, it concluded that to give effect to enhanced reproduction costs would defeat that purpose. (p. 27.)

It knew that the value for rate making purposes could not be more than that sum on which a fair return could be earned by legal rates; and that the earnings were limited both by the commercial prohibition of rates higher than the traffic would bear and the legal prohibition of rates higher than are just and reasonable.

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[19] Senator Kellogg in the debate on the bill justified the 5½ per cent return by the same argument as used by the Committee in reporting the bill: "Again it must be remembered that 5½% today is not equal to 5½% five years ago. The great inflation of currency and the general rise in all commodities have made a dollar very much less in purchasing power." 59 Cong. Rec., Part 1, p. 224. The same recognition of increased costs had been given as a justification for the liberal return authorized by the Federal Control Act. 1916 and 1917, two of the three years taken as a basis for measuring the return, were the most prosperous in the history of the railroads. See 56 Cong. Rec., Part II, p. 2021.

It knew that a rate-base fluctuating with changes in the level of general prices would imperil industry and commerce. It knew that the adoption of a fluctuating rate-base would not, as is claimed, do justice to those prewar investors in railroad securities who were suffering from the lessened value of the dollar, since the great majority of the railroad securities are represented by long term bonds or the guaranteed stocks of leased lines which bear a fixed return; and that only the stockholders could gain through the greater earnings required to satisfy the higher rate base. It recognized that an adequate national system of railways, so long as it is privately owned, cannot be provided and maintained without a continuous inflow of capital; that "obviously, also, such an inflow of capital can only be assured by treatment of capital already invested which will invite and encourage further investment," (p. 30); and that as was said in *Dayton-Goose Creek Ry. Co.* v. *United States*, 263 U. S. 456, 481: "By investment in a business dedicated to the public service the owner must recognize that as compared with investment in private business, he cannot expect either high or speculative dividends but that his obligation limits him to only fair or reasonable profit."[20]

The conviction that there would in time be a fall in the price level was generally held. As a fluctuating rate-base would thus directly imperil industry and commerce and investments made at relatively high price levels during and since the World War;[21]

[20] Mr. Esch, in submitting the conference report to the House, said: "Investors want something definite and fixed upon which they can reckon. The provisions of section 422 give that stability, that standard which I trust, will encourage investment . . ." 59 Cong. Rec., Part 4, p. 3269. The Commission points out (p. 32): "In other words, assuming a static property [valued at $18,000,000,000] there would have been a gain of 23.4 billions in 1920, a loss of 6.3 billions in 1921, a further loss of 6.8 billions in 1922, and a gain again of 3 billions in 1923. These huge 'profits' and 'losses' would have occurred without change in the railroad property used in the public service other than the theoretical and speculative change derived from a shifting of general price levels."

[21] "During the seven years 1920 to 1926, inclusive, there was an approximate net investment in additions and betterments and new construction of 4 billions. These were paid for at then current prices, all above, in many cases far above, present prices. Assuming that there has since been an average decline in unit price level of 25 per cent, a valuation under the current reproduction cost doctrine would wipe out one billion of that additional investment. The effect upon any railroad entirely or largely constructed during the period 1920 to 1926 may be imagined." (p. 32.)

would tend to increase the cost of new money required to supply adequate service to the public; and would discourage such investment, the Commission concluded that Congress could not have intended to require it to measure the value or rate-base by reproduction cost, since this would produce a result contrary to its declared purpose. And as confirming its construction of § 15a the Commission showed that, with the stable rate-base which it had accepted as the basis for administering the Act, the aim of Congress to establish an adequate national system had been attained. It pointed out that: "During the period 1920-1926, inclusive, the investment in railroad property increased by 4 billions of dollars. A substantial part of this money was derived from income, but much of it was obtained by the sale of new securities. The market for railroad securities since the passage of the transportation act, 1920, has steadily improved and the general trend of interest rates has been downward. The credit of the railroads in general is now excellent. . . ." (p. 33.)

Fifth. Other considerations confirm the construction given by the Commission to the phrase "value for rate making purposes," as used in § 15a. In condemnation proceedings, the owner recovers what he has lost by the taking of the property, *Boston Chamber of Commerce* v. *Boston*, 217 U. S. 189, 195; and such loss must be determined "not merely with reference to the uses to which it is at the time applied, but with reference to the uses to which it is plainly adapted." *Boom Co.* v. *Patterson*, 98 U. S. 403, 408. Compare *Louisville & Nashville R. R. Co.* v. *Barber Asphalt Co.*, 197 U. S. 430, 435. But the actual value of a railroad—its value for rate making purposes under § 15a—may be less than its condemnation value. As was said in *Southern Ry. Co.* v. *Kentucky*, 274 U. S. 76, 81-82, a case involving state taxation: "The value of the physical elements of a railroad — whether that value be deemed actual cost, cost of reproduction less depreciation or some other figure—is not the sole measure of or guide to its value in operation. *Smyth* v. *Ames*, 169 U. S. 466, 557. Much weight is to be given to present and prospective earning capacity at rates that are reasonable, having regard to traffic available and competitive and other conditions prevailing in the territory served."

Value has been defined as the ability to command the price.[22] Railroad property is valuable as such only if, and so far as, used. If rates are too high, the traffic will not move. Hence, the value or rate-base is necessarily dependent, in the first place, upon the commercial ability of the property to command the rates which will yield a return in excess of operating expenses and taxes; and such value cannot be higher than the sum on which, with the available traffic, the fair return fixed under § 15a can be earned. Persistent depression of rates or lessening volume of traffic, from whatever cause arising, ordinarily tends to lower actual values of railroad properties. It follows, that since the Commission is required by the rule of *Smyth* v. *Ames*, re-affirmed in the *Southwestern Bell* case, to determine the rate-base under § 15a by actual value as distinguished from prudent investment, it must in making the finding consider the effect upon value of both the commercial and the legal limitations upon rates and, among other things, the effect of competition upon the volume of traffic.

Recent experience affords striking examples of commercial limitations upon rates. In *Ex parte 74, Increased Rates, 1920*, 58 I. C. C. 220, the Commission sought to establish rates which would yield 6 per cent upon the aggregate values of the railroads in the several groups. The carriers claimed as the aggregate value $20,040,572,611 — that amount being carried on their books as the cost of road and equipment. The Commission fixed the value about 5 per cent lower—at $18,900,000,000. In order to produce on that sum net earnings equal to 6 per cent, it increased freight rates, in the eastern group, 40 per cent over the then existing rates; in the southern group 25 per cent; in the western group 35 per cent; and in the mountain-Pacific group 25 per cent.[23] As a

[22]The value of the plant is "a result of the rates rather than a basis for rates. . . . . If rates are established upon a basis of reproduction cost, value will tend to approximate such cost, but this will be through the operation of economic law and not because a certain figure has been decreed as value." F. G. Dorety, "The Function of Reproduction Cost", 37 Harvard Law Rev. 173, 189. Compare Monongahela Navigation Co. v. United States, 148 U. S. 312, 328; C. C. C. & St. L. Ry. Co. v. Backus, 154 U. S. 439, 445; 1 Taussig, Principles of Economics, 115; Laughlin, Elements of Political Economy, pp. 75-77.

[23]Large increases had been made theretofore. A general rate increase of 5 per cent in 1914, *Five Per Cent Case*, 31 I. C. C. 351; 32 I. C. C. 325; 15 per cent in 1917, *Fifteen Per Cent Case*, 45 I. C. C. 303; and 25 per cent in 1918, General Order of Director General, No. 28.

result of these increases, the average gross revenue per ton mile in 1921 was in the eastern district 96.1 per cent greater than for the fiscal year ended June 30, 1914; in the southern, 61.4; in the western, 59.3; and in the United States as a whole, 76.2. *Reduced Rates, 1922*, 68 I. C. C. 676, 702. Passenger rates were subjected by the order in *Ex parte 74*, to a flat increase of 20 per cent and surcharges were added. (p. 242.)[24]

On a large number of basic commodities, which were among the most important articles of commerce, the rates proved to be higher than the traffic would bear. Reductions became imperative. Within a year after the entry of that order, many applications for reductions were made to the Commission, not only by shippers but also by the carriers themselves. It was estimated that the reductions in freight rates made by the carriers prior to March 15, 1922, would aggregate for that year $186,700,000; and would lower the general rate level nearly 5 per cent. On some important articles of traffic the entire increase made by *Ex parte 74* was cancelled.[25] Further reductions were then ordered by *Reduced Rates, 1922*, 68 I. C. C. 676, the Commission saying (pp. 732-3): "High rates do not necessarily mean high revenues, for, if the public cannot or will not ship in normal volume, less revenue may result than from lower rates. Shippers almost unanimously contend, and many representatives of the carriers agree, that 'freight rates are too high and must come down.' This indicates that transportation charges have mounted to a point where they are impeding the free flow of commerce and thus tending to defeat the purpose for which they were established, that of producing revenues which would enable the carriers 'to provide the people of the United States with adequate transportation.'" Further reductions made in the year 1923 are said to have again lowered

[24]They had been raised 40 per cent before.

[25]See Rate Reductions, House Doc. No. 115, 67th Congress, 1st Session, e. g., p. 7: "Reductions in all rates on iron ore throughout the so-called eastern territory, including generally points east of the Mississippi and north of the Potomac and Ohio Rivers, including, of course, ex Lake ore moving from Lake Erie ports. These reductions will eliminate all increases effected under Ex parte 74, and it is conservatively estimated the amount will reach in round figures $5,000,000 per year." For instances of important reductions made by the carriers voluntarily, see Smelter Products from Nevada & Utah, 61 I. C. C. 374; Grain from Illinois Points to New Orleans, 69 I. C. C. 38; Copper Duquesne Reduction Co. v. Pennsylvania R. R. Co., 96 I. C. C. 351, 354-355.

freight rates 5 per cent.[26] The effect of the several reductions made in the rates authorized by *Ex parte 74* is said to have lowered by $800,000,000 the freight charges otherwise payable on the traffic carried during the eighteen months ending December 31, 1923.[27] Each year since has witnessed a further lowering in the revenue per ton mile and per passenger mile.[28]

This constant lowering of the weighted average of rates since 1920 must have been due to causes other than desire on the part of the Commission. Its aim was to adjust rates so that they would yield the prescribed return. But for the period from 1920 to 1927 inclusive, there was only one year in which the railroads of the United States as a whole, despite general prosperity and greater efficiency, earned on the value found in *Ex parte 74* brought down to date, the full average return prescribed as fair under § 15a.[29] The Commission repeatedly refused to permit carriers to make reductions, because the reduction would lower the revenues sought to be provided under § 15a.[30] On the other hand, carriers, although

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[26] Railway Age, 1924—Vol. 76.1, p. 726.

[27] Letter of Chairman Hall to Senator E. D. Smith, May 28, 1924, 68 Cong. Rec., Part 10, p. 10275.

[28]

	1921	1922	1923	1924	1925	1926	1927
Revenue per ton mile (cents)	1.294	1.194	1.132	1.132	1.114	1.096	1.095
Revenue per passenger mile (cents)	3.093	3.037	3.026	2.985	2.944	2.941	2.901

Annual Report of the Interstate Commerce Commission for 1928, p. 115. It is impossible to say to what extent this persistent shrinkage has been the result of miscellaneous rate adjustments and to what extent to fluctuations in character of traffic. Statistics of Railways in the United States, I.C.C. 1927, p. X.

[29] The fair return for the first two years was fixed by Congress at 5½ per cent, and the Commission was authorized to add one-half of one per cent for improvements, betterments and equipment. This additional allowance was granted in Ex parte 74, 58 I. C. C. 220. For the rest of the period it was prescribed by the Commission at 5¾ per cent. Reduced Rates, 1922, 68 I. C. C. 676, 683. The rate of return calculated on Ex parte 74 value of the railroads as a whole brought down to date, was:

	1921	1922	1923	1924	1925	1926	1927	1928
Per cent	3.2	4.0	5.1	4.9	5.5	5.8	5.1	5.5

The return on that basis in the Southern group has in most years exceeded that prescribed as fair. In the Eastern group the return has since 1924 exceeded that prescribed. In the Western groups the prescribed return appears never to have been reached. Compare Bonbright, "Economic Merits of Original Cost and Reproduction Cost," 41 Harvard Law Review 593, 618.

[30] Trunk Line & Ex Lake Iron Ore Rates, 69 I. C. C. 589, 610-611; Import and Domestic Rates on Vegetable Oils, 78 I. C. C. 421; Grain & Grain

earning less than the fair return prescribed under § 15a, have often voluntarily reduced rates.[31] The lowering of rates was probably due in large measure to the influence of competing means of transportation.[32]

Sixth. Since 1914, the railroads have been obliged, to an ever increasing extent, to compete with water lines and with motors. This competition has been fostered by the Government[33] through

Products from Kansas and Missouri to Gulf Ports, 115 I. C. C. 153, 164; Grain & Grain Products to Eastern Points, 122 I. C. C. 551, 563-4; Lake Cargo Coal, 139 I. C. C. 367, 392-5. See Rates from Atlantic Seaboard, 61 I. C. C. 740; Salt from Louisiana Mines, 66 I. C. C. 81; Coal to Kansas City, 66 I. C. C. 457; Coal from Wyoming Mines, 68 I. C. C. 254; Coal from Southwest, 73 I. C. C. 536; Transcontinental Cases of 1922, 74 I. C. C. 48; Canned Goods from Pacific Coast, 132 I. C. C. 520; Cement in Carloads, etc., 140 I. C. C. 579, 582. Compare H. W. Biklé, "Power of the Interstate Commerce Commission to Prescribe Minimum Rates", 36 Harvard Law Rev. 5, 30.

[31]See Smelter Products from Nevada and Utah, 61 I. C. C. 374; Coal from Illinois to Arkansas, Louisiana and Texas, 68 I. C. C. 1; Coal from Kentucky, Tennessee and West Virginia, 68 I. C. C. 29; Rates from Chicago via Panama Canal 68 I. C. C. 74; Grain from Illinois Points to New Orleans, 69 I. C. C. 38; Trunk Line and Ex Lake Iron Ore Rates, 69 I. C. C. 589; Sugar Cases of 1922, 81 I. C. C. 448; Grain to Texas, 96 I. C. C. 727; Pig Iron from Southern Points, 104 I. C. C. 27; Grain and Grain Products from Western States, 104 I. C. C. 272; Coal to Cincinnati, 123 I. C. C. 561. The suspension docket for the calendar year 1928 shows that of the cases in which rates proposed by the carrier were permitted to become effective without suspension, after protest, 81 were reductions of existing rates and 93 were increases.

[32]Compare F. G. Dorety, "The Function of Reproduction Cost," 37 Harvard Law Review 173, 194.

[33]Transportation Act, Feb. 28, 1920, c. 91, § 500, 41 Stat. 456, 499: "It is hereby declared to be the policy of Congress to promote, encourage, and develop water transportation, service, and facilities in connection with the commerce of the United States, and to foster and preserve in full vigor both rail and water transportation." Chicago, Rock Island & Pacific Ry. Co. v. United States, 274 U. S. 29, 36. Compare Transcontinental Cases of 1922, 74 I. C. C. 48; United States War Department v. Abilene, etc. Ry. Co., 77 I. C. C. 317; 92 I. C. C. 528; Houston Cotton Exchange & Board of Trade v. Arcade, etc. Corp., 87 I. C. C. 392; 93 I. C. C. 268; Reduced Commodity Rates to Pacific Coast, 89 I. C. C. 512; Southern Class Rate Investigation, 100 I. C. C. 513; Commodity Rates to Pacific Coast Terminals, 107 I. C. C. 421; Consolidated Southwestern Cases, 123 I. C. C. 203; Canned Goods from Pacific Coast, 132 I. C. C. 520; Tinplate to Sacramento, 140 I. C. C. 643; American Hawaiian S. S. Co. v. Erie R. R. Co., 152 I. C. C. 703.

the Panama Canal Act;[34] through the intracoastal waterways acts;[35] through the inland waterways acts;[36] through the development of coastwise shipping by means of harbor improvements,[37]

[34]The Panama Canal Act, Aug. 24, 1912, c. 390, § 11, 37 Stat. 566, now incorporated in the Interstate Commerce Act as par. 10 of § 5 (see Transportation Act, Feb. 28, 1920, c. 91, § 408, 41 Stat. 482), prohibits any railroad from having any interest "in any common carrier by water operated through the Panama Canal or elsewhere with which said railroad . . does or may compete for traffic." Compare Application of United States Steel Products Co., 57 I. C. C. 513; 77 I. C. C. 685; 151 I. C. C. 577.

[35]The Cape Cod Canal purchased pursuant to Act of Jan. 21, 1927, c. 47, § 2, 44 Stat. 1015, resulted in the elimination of tolls and an immediate large increase in vessel traffic. "The use of the canal under present conditions will undoubtedly operate to reduce freight rates." Report of Chief of Engineers to the Secretary of War, Oct. 2, 1928, p. 76. The Chesapeake and Delaware Canal was acquired and improved pursuant to Act of March 2, 1919, c. 95, § 1, 40 Stat. 1277, and Act of Jan. 21, 1927, c. 47, §3, 44 Stat. 1016. "The opening of the canal at sea level to navigation within the limits of the dimensions authorized under the project has resulted in increasing the number and size of vessels passing through. New vessels to take advantage of the increased facilities are being constructed. Freight rates have been lowered as a result of the increased competition between carriers. Its effect on rail rates is to hold them at a minimum." Annual Report of Chief of Engineers to the Secretary of War, Oct. 2, 1928, pp. 408, 410. See Proposed Intracoastal Waterway from Boston, Massachusetts to the Rio Grande, Act of March 3, 1909, c. 214, § 13, 35 Stat. 822; Letters of Secretary of War transmitting to Congress letters from the Chief of Engineers on Surveys, House Doc. 391, January 5, 1912, 62 Cong., 2d Sess.; House Doc. 229, September 11, 1913, 63 Cong., 1st Sess.; House Doc. 233, September 11, 1913, 63 Cong., 1st Sess.; House Doc. 610, January 17, 1914, 63 Cong., 2d Sess.; House Doc. 1147, June 3, 1918, 65 Cong., 2d Sess.; House Doc. 238, April 12, 1924, 68 Cong., 1st Sess.; Senate Doc. 179, December 8, 1924, 68 Cong., 2d Sess.; House Doc. 586, December 14, 1926, 69 Cong., 2d Sess.

[36]The river improvements on the Ohio, the Mississippi and the Warrior rivers, and the creation of the government owned Inland Waterways Corporation to operate barge lines has been followed by legislation requiring the railroads to join in through routes and joint rates and providing for differentials. Act of May 29, 1928, c. 891, § 3 (e), 45 Stat. 940. Although barge lines are still limited in their sphere of operation, the through routes with differentials applied for by the Inland Waterways Corporation and ordered by the Commission pursuant to the direction of Congress cover a large part of the United States. Ex parte 96, 153 I. C. C. 129, 132. Compare Annual Report Inland Waterways Corporation, 1928.

[37]For an instance of the effect of harbor improvement in increasing coastwise shipping and thereby reducing rail rates, see Annual Report of the Chief of Engineers (1928) upon Miami, p. 722: "The completion of the 20-

and through federal aid in the construction of highways.[38] There has also been increased competition by pipe lines. Competition from other means of transportation has tended to arrest the normal increase in the volume of rail traffic; and as to some traffic it has actually produced a reduction in both the volume and the rates. It has resulted in a general shrinkage in the passenger business;[39] in some regions, in a lessening of the carload freight;[40] and in many, in a reduction of the volume of the less than carload freight.[41]

The influence of water competition on rates is strikingly illustrated by the effect of the Panama Canal on transcontinental freight rates.[42] In order to meet this water competition carriers have repeatedly asked leave to make sweeping reductions.[43] Rates volun-

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foot project has had a pronounced effect on railroad and water-transportation rates." The domestic water-borne commerce on the Atlantic, Gulf, and Pacific Coasts rose from 114,557,241 tons in 1920 to 231,530,937 tons in 1927. The tonnage on the rivers, canals and connecting channels rose from 125,400,000 in 1920 to 219,000,000 in 1927. Annual Report of the Chief of Engineers for 1928, Commercial Statistics, p. 3. On the New York State canals the tonnage increased steadily from 1,159,270 in 1918 to 2,581,892 in 1927. Commerce Year Book, 1928, Vol. 1, p. 617. The tonnage of the shipping occupied in the coastwise and internal trade increased from 6,852,000 tons in 1914 to 9,743,000 tons in 1928. p. 619.

[38]The competition by motor has, in large measure, been stimulated and made possible by the grants by Congress since 1914 of federal aid to highway construction. The highways completed with federal aid to June 30, 1928, aggregate 72,394 miles. The aggregate mileage comprised in what is designated as federal-aid highway systems is 187,753 miles. Report of Chief of Bureau of Public Roads, Sept. 1, 1928, pp. 3, 7.

[39]The passenger miles per mile of road dropped gradually from 199,708 in 1920 to 141,800 in 1927; the passenger revenues from $1,286,613,000 in 1920 to $974,950,000 in 1927. 42 Annual Report I. C. C., Dec. 1, 1928, pp. 115, 117. This shrinkage continued throughout 1928.

[40]For an example of reduction in carload traffic, see note 45.

[41]The less than carload freight on all the railroads of the United States shrank from 44,338,000 tons in 1923 to 38,440,000 tons in 1927. In the Eastern District (including the Pocahontas region) it shrank from 23,321,000 tons in 1923 to 19,363,000 tons in 1927. Statistics of Railways in the United States, 1927 [I. C. C.], p. XVII. This reduction has continued in 1928.

[42]"The volume of general cargo carried in United States vessels, particularly in United States intercoastal traffic, has been increasing from year to year." Annual Report of Governor of Panama Canal for 1928, p. 12.

"Like all other western lines we feel rather severely the effect of Panama Canal competition." J. S. Pyeatt, president, Denver & Rio Grande Western Ry., Railway Age, 1926—Vol. 80.1, p. 10.

[43]Class and Commodity Rates for Transshipment via Panama Canal, 68 I. C. C. 74; Reduced Rates from New York Piers, 81 I. C. C. 312, 315; Re-

tarily established by the rail carriers are lower now, on some articles of traffic, than they were in 1914. On others they are only a little higher.[44] The influence of competition by the inland waterways on the volume of rail traffic is illustrated in the effect which improvement of the Ohio River and its tributaries has had in the Pittsburg district. The rail tonnage in 1927 was materially less than in 1914, while the water tonnage more than doubled.[45] The influence of barge

duced Commodity Rates to Pacific Coast, 89 I. C. C. 512; Reduced Rates to Pacific Coast Terminals, 107 I. C. C. 421. Compare American Hawaiian S. S. Co. v. Erie R. R. Co., 152 I. C. C. 703, 705, 707.

[44] "Shortly after the opening of the Panama Canal, a rate of $10.90 per ton was established on copper, lead and zinc smelter products from certain far west mines to the eastern refineries for movement by rail to the Pacific Coast and thence by water through the canal. This forced a reduction in all rail rates from the same points to New York, first from $22.50 per ton to $16.50 per ton, and then to $12.50 per ton which is the present rate." Brass, Bronze and Copper Ingots, 109 I. C. C. 351, 355. Compare Eastbound Tariffs, San Francisco and Los Angeles to Kansas City and Chicago, Agent Countiss I. C. C. 978, July 1, 1914, with Agent Toll, March 25, 1929, I. C. C. 1209; Westbound, Kansas City and Chicago to Portland and Seattle, Agent Countiss I. C. C. 984 with Agent Toll, March 25, 1929, I. C. C. 1211; Agent Toll, I. C. C. 1209 with Agent Countiss, I. C. C. 1065; Agent Toll, I. C. C. 1206 with Agent Countiss, I. C. C. 1084; Agent Toll, I. C. C. 1210 with Agent Countiss, I. C. C. 1077; Agent Toll, I. C. C. 1211 with Agent Countiss, I. C. C. 1068. See Applications of the Southern Pacific Atlantic S. S. Lines for fourth section relief, Nos. 13638, 13639.

A striking illustration of the effect of Panama Canal competition is furnished by the reduction in proportional rates made by the Illinois Central R. R. Co. to New Orleans, May 31, 1928, on shipments via the Redwood (steamship line) to California in order to place manufacturers in the Chicago District on a parity with those in the Pittsburg District shipping via the Atlantic seaboard. The domestic rate on iron and steel from Chicago to New Orleans was 55 cents; and the proportional rail and water rate to California had been 39½ cents. It was reduced to 31 cents, leaving the domestic rate unchanged. Tariff I. C. C. No. A-10314.

[45] In 1914, 158,327,451 tons were transported by rail and 17,601,661 by water. In 1927, 152,872,882 by rail and 39,998,562 by water. "The advantages of the utilization of the Ohio and its connecting waterways have been amply demonstrated and the rail carriers should realize that they cannot continue to handle by all rail routes much traffic which can be more economically transported by all water or rail-and-water routes. The interveners express fear that lower rates over a rail-and-water route will jeopardize the present rate structure, but assuming such fear to be well founded, that fact would not justify us in withholding approval of any plan which promises to reduce substantially the cost of necessary transportation." Construction of Branches by P. L. & W. Co., 150 I. C. C. 43, 52, 55.

lines in reducing or holding down rail rates is illustrated by the rail rates in competition with those of the barge lines on the Ohio, the Mississippi and the Warrior rivers.[46] The widespread effect of competition by motor truck in lowering both the rates and volume of rail traffic is obvious.[47] Not obvious, but indisputable, has been the ef-

[46]The establishment of barge lines, especially when followed by the establishment of through rail and barge line routes tends both to reduce rail rates and the volume of rail tonnage. See Inland Waterways Corporation *v.* Alabama G. S. R. R., 151 I. C. C. 126; Coal and Coke from Western Kentucky, 151 I. C. C. 543, 549; Rates on Fertilizer, etc., Within Florida, 151 I. C. C. 602, 608. Compare Vanderblue, "The Long and Short Haul Clause Since 1910," 36 Harvard Law Review 426, 437. As to the development of the barge lines, see Annual Report of the Inland Waterways Corporation for 1928.

[47]For instances on Boston & Maine R. R., compare authority I. C. C. Nos. A-2535, 2540, 2565, 2597, 2600 with issue I. C. C. Nos. A-2556, 2657, 2600, 2654; M. D. P. U. 1706, 1717, 1719, 1728, 1729, 1730; N. H. P. S. C. 1166. Many illustrations of this are afforded by applications made under § 6 of the Interstate Commerce Act for permission, because of motor competition, to change rates on less than 30 days' notice. In the period from Nov. 23, 1928 to March 19, 1929, six such applications were made by the Boston & Maine Railroad; five by the New York, New Haven & Hartford, and two by the Boston & Albany. In one instance the rate was reduced to less than one-half; in another to just one-half; and in the others by varying percentages. The reductions related, among others, to articles as bulky as crushed stone and lumber, and as heavy as scrap iron and wire rods. Among such applications made by western lines in 1928, are those of the Southern Pacific and Atchison for carload rates on sugar (Nos. 87,723, 87,724) and on dried fruits (86,227); and that of the Southern Pacific for carload rates on iron or steel pipe (No. 90,219).

In a paper delivered before the Mid-West Transportation Conference, R. C. Morse, general superintendent, Pennsylvania R. R., said: "The truck has proved more economical than the box car for the transportation of less than carload freight for short hauls and, under special circumstances, for comparatively long hauls." Railway Review, 1925—Vol. 76, p. 1116.

In an address before the Western Railway Club, T. C. Powell, president, Chicago & Eastern Illinois Ry., said: "The great change, therefore, that has taken place since 1920 has been this growth of automobile traffic, and by this I mean not simply the ownership of automobiles, but the diversion to the passenger automobile and freight motor truck of a large number of passengers and a large tonnage of freight, respectively, of the character heretofore handled by the steam carriers, and this loss of gross-revenue producing traffic has brought about a reduction in train service on main lines as well as on branch lines, which has a very marked effect upon the number of employees engaged in train service." Railway Review, 1925—Vol. 77, p. 768.

For further comment on the motor bus and motor truck as competitive and auxiliary instruments of transportation, see Railway Age, Vol. 71.1,

fect of the potential competition of pipe-lines shown by reductions in oil rates caused by the threat of competing pipe-lines."

Moreover, rates which are not so high as to prevent commercially the movement of traffic are often required to be lowered because they conflict with some statutory provision. Thus, Congress compels reduction of rates which discriminate unjustly against individuals, localities, articles of traffic or other carriers. Perhaps the most striking instance of the limitation by law of rates which the traffic would bear commercially is furnished by cases under the long and short haul clause. By that clause, a rail carrier is often obliged (unless relieved by order of the Commission) to elect between suffering practically a total loss of existing traffic between competitive points or suffering a loss in existing revenues by reducing rates at both the competitive points and intermediate non-competitive points. The effect of this limitation upon rates, and hence upon the actual value of railroads, has become very great. Its influence has grown steadily with the growth of competition by water and motor, with the growth in the size of the individual railroad system, with the growth in the dependence of railroads for their revenues upon long-haul freight traffic and with the growing length of the average haul.[22] It has become so important for rail carriers to hold a share of the long-haul freight traffic at competitive points, that the long and short haul clause, if not relieved from, results in the carriers' giving, in large measure, to the intermediate non-competitive points which otherwise would be subject to monopoly exactions, the full benefit of that lowering of rates required to meet the competition. The many applications for reductions made in petitions for relief from the operation of the long and short haul clause illustrate the influence of rail, as well as of

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p. 432; Vol. 75.2, p. 992; Vol. 76.1, p. 319; Vol. 77.1, p. 275; Vol. 78.2, p. 1513; Vol. 79.2, p. 1017; Vol. 80.1, pp. 12, 547, 918; Vol. 80.2, pp. 1401, 1981; Vol. 81.1, pp. 153, 381; Vol. 81.2, p. 801; Vol. 82.2, p. 1651; Vol. 83.1, p. 601; Vol. 83.2, p. 753; Vol. 84.2, pp. 1025, 1315; Vol. 85.1, p. 399; Railway and Locomotive Engineering, Feb., 1928, p. 37; Engineering News-Record, Vol. 96.1, p. 305; Railway Review, Vol. 77, p. 604.

[21] Petroleum and Petroleum Products from Oklahoma (I. & S. 3144, April 6, 1929), 153 I. C. C. —, —.

[22] In the period from 1914 to 1927 the average freight haul for the individual railroad increased from 144.17 to 172.11 miles; and the average haul, treating all the railroads as a single system, increased from 255.43 to 314.75 miles. Annual Report of the Interstate Commerce Commission for 1928, p. 114.

water and motor, competition in thus depressing rates.[80] Congress has by that clause limited values for rate making purposes under § 15a, almost as effectively as by its promotion of competitive means of transportation.

Seventh. In requiring that the value be ascertained for rate making purposes, Congress imposed upon the rate-base as defined in *Smyth* v. *Ames*, still another limitation which is far-reaching in its operation. By declaring in § 15a that the Commission shall, "in the exercise of its power to prescribe just and reasonable rates" so adjust them that upon the value a fair return may be earned "under honest, efficient and economical management" Congress made efficiency of the plant an element or test of value.[81] Efficiency and economy imply employment of the right instrument and material as well as their use in the right manner. To use a machine, after a much better and more economical one has become available, is as inefficient as to use two men to operate an efficient machine, when the work could be performed equally well by one, at half the labor cost. Such an instrument of transportation, although originally well conceived and remunerative, should, like machines used in manufacturing, be scrapped when it becomes wasteful.

Independently of any statute, it is now recognized that, when in confiscation cases it is sought to prove actual value by evidence of reproduction cost, the evidence must be directed to the present cost of installing such a plant as would be required to supply the

[80] See e. g. Trunk-Line & Ex-Lake Iron Ore Rates, 69 I. C. C. 589; Reduced Rates from New York Piers, 81 I. C. C. 312, 317; Sugar Cases of 1922, 81 I. C. C. 448; Vinegar Rates from Pacific Coast, 81 I. C. C. 666; Iron from Southern Points, 104 I. C. C. 27; Reduced Rates on Commodities to Pacific Coast Terminals, 107 I. C. C. 421, 436; Pacific Coast Fourth Section Applications, 129 I. C. C. 3, 23. Compare Vanderblue, "The Long and Short Haul Clause Since 1910," 36 Harvard Law Rev. 426, 437.

[81] In confiscation cases the term "used and useful" had been commonly employed in making the valuations. The specific provision, requiring efficiency and economy, was doubtless inserted in § 15a because the Commission had theretofore expressed a doubt as to the extent to which it could, in determining the reasonableness of rates, consider the efficiency and economy of the management. Compare Advances in Rates — Eastern Case, 20 I. C. C. 243, 278-280. This provision must be read in the light of paragraph (5) of § 20, also added to the Interstate Commerce Act by Transportation Act, 1920, which directed the Commission to prescribe what depreciation charges should be allowed as a part of the operating expenses.

same service. For valuation of public utilities by reproduction cost implies that "the rates permitted should be high enough to allow a reasonable per cent of return on the money that would now be required to construct a plant capable of rendering the desired service"; and does not mean "that the plant should be valued at what would now be needed to duplicate the plant precisely."[28] Proof of value by evidence of reproduction cost presupposes that a plant like that being valued would then be constructed. To the extent that a railroad employs instruments which are inconsistent with efficiency the plant would not be constructed; and because of the inefficient part, the railroad is obviously not then worth the cost of reconstructing the identical plant. While a part often has some service value, although not efficient according to the existing standard, its use may involve such heavy, unnecessary operating expense as to render it valueless for rate making purposes under § 15a. The Commission when requested to consider evidence of reproduction cost must, therefore, examine the value of every part of the plant, and that of the whole plant, as compared with the value of a modern, efficient plant. Upon such consideration the Commission may conclude that the railroad is so largely obsolete in construction and equipment as to render evidence of the reproduction cost of the identical plant of no probative force whatsoever. The duty so to deal with the evidence seems to flow necessarily from the rejection by the Court of prudent investment as the measure of value and the adoption, instead, of the actual value of the property at the time of the rate hearing as the governing rule of substantive law.

The physical deterioration of a railroad plant through wear and tear may be very small as compared with a plant new, while its functional deterioration may be very large as compared with a

[28] Harry Gunnison Brown, "Present Costs", p. 6. (Reprinted from Public Utilities Fortnightly, March 7, 1929); F. G. Dorety, "The Function of Reproduction Cost," 37 Harvard Law Rev. 173, *passim*; James C. Bonbright, XL Quarterly Journal of Economics, pp. 295, 317. Compare 42 Proceedings, Am. Soc. of Civil Engineers, 1916, pp. 1719, 1772. Compare City of Spokane v. Northern Pacific Ry. Co., 15 I. C. C. 376, 393-4; Goddard, "The Evolution of the Cost of Reproduction as the Rate Base," 41 Harvard Law Rev. 564, 572; Robinson, "Duty of a Public Utility to Serve at Reasonable Rates: The Valuation War," 6 No. Car. Law Rev. 243, 256; "Railroad Valuation", by Leslie Craven, Railway Age, 1923—Vol. 75.2, pp. 807, 808.

modern efficient plant. This lessening of service value may be due to any one of several causes. It may, in the first place, be due to causes wholly external. Freight terminals, originally well conceived and wisely located in the heart of a city, may have become valueless for rate making purposes under § 15a, because through growth of the city the expense of operating therein has become so high, or the inescapable cost of eliminating grade crossings so large, that efficient management requires immediate abandonment of the terminals.[53] And, even if the cost of continuing operation there is not so high as to require abandonment, the property may have for rate-making purposes a value far below its market value.[54] Compare *Minneapolis & St. Louis R. R. Co.* v. *Minnesota*, 186 U. S. 257, 268; *Willcox* v. *Consolidated Gas Co.*, 212 U. S. 19, 52.

The lessening of the service value of a part of the railroad plant may flow from changes in the volume or character of its traffic. For economy and efficiency are obviously to be determined with reference to the business of the carrier then being done and about to be

[53] In a paper delivered before the Western Society of Engineers, F. J. Scarr, supervisor motor service, Pennsylvania R. R., said: "We are conducting inefficient terminal operations through inadequate facilities, and by means of antiquated methods. . . . Before the general acceptance of the motor vehicle as a dependable means of transportation, we had only the horse drawn vehicle available for the movement of freight over the highways. The limited effective radius of action, slow speed, and low capacity, of this instrument forced the railroads to place on track freight stations as near the centers of production and consumption as possible, almost regardless of cost or future expansion requirements. This factor, with reckless competition between carriers, influenced the railroads to engage in what approaches retail transportation, by the establishing of innumerable small stations and private sidings. It is my firm conviction that had the motor truck, with its greater radius of action, greater capacity, greater flexibility, and greater endurance, been available, the carriers would have developed terminals better adapted to take advantage of these characteristics." Railway Review, 1926—Vol. 78, p. 790.

[54] "'The time is fast approaching when railroads will stop buying expensive downtown city property for freight houses, and will, by the use of trucks, handle freight from outside and less costly freight houses direct to consignees' door.' . . . Where is the economy in hauling freight into terminals situated on the most valuable land in Chicago, and why should this same freight be hauled through Chicago's most congested district for delivery? . . . The delays in switching, due to congestion, are so costly that their elimination, if only in part, would pay very handsome dividends on a very large capital investment." Railway Review, 1926—Vol. 78, p. 403. See, also, Railway Age, Vol. 71.1, p. 21; Vol. 81.2, p. 968; Engineering News-Record, Vol. 96.1, p. 354.

done.[55] A station warehouse for less-than-carload freight may have become valueless for rate making purposes, because, through motor competition, the railroad had lost substantially all its less-than-carload business at that point. Large reductions in the value of passenger stations and equipment may have resulted from decline in the passenger traffic. Branch lines may lose all their service value so that they should be abandoned because motor transportation has become more efficient. On the other hand, the traffic may have grown so much as to render inefficient a part of a line originally wisely constructed with heavy grades[56] or

[55]See Advances in Rates—Eastern Case, 20 I. C. C. 243, 271: "Assume that a railroad is originally constructed over a mountain, it being more economical to haul the traffic up and down the steep grades than to incur the great outlay which would be required by constructing a tunnel. With the development of traffic the time comes when this mountain must be pierced, and a tunnel is accordingly constructed at a large expenditure. When the tunnel is put into service and the line over the mountain abandoned the cost of the tunnel is added and the cost of the abandoned railroad subtracted from construction cost, so that, as shown by the books, the cost of construction is the same as though the tunnel had been built at the outset."

[56]C. A. Morse, chief engineer, Chicago, Rock Island & Pacific Ry., in an address before the Western Society of Engineers in 1926, said: "Comparatively little has been done in the reduction of grades and today a great majority of the trunk line railroads in this country are operating over grade lines that were considered economical 50 or 75 years ago. These railroads were built in the days before steam shovels and other mechanical grading devices had been developed, and when rock was handled with hand drills, black powder and carts. The result was that grading was very expensive and they sought to minimize it. . . . The reduction in the ruling grade and in the rate of curvature will result in both cheaper transportation and a saving in time. . . . During the last twenty-five years, it has been the practice of most railroads to reduce their grades in connection with the construction of a second track, but unfortunately additional main track has been constructed on many of the older roads before the value of the lighter ruling grade was appreciated. The reduction of grade means practically the rebuilding of such lines and the expense of this together with the interruption to traffic while it is being done has prevented much of this from being carried out for unless the subject is thoroughly investigated, we are apt to consider it as impracticable. . . . Simply maintaining in first class condition a roadway that, as far as grades and alinement are concerned, is of a type such as was constructed a half century ago, is not maintaining a modern railroad. . . . With the great majority of the railroads operating over lines that have the grade line and curvature of a half century ago, the big job is to modernize the roadway." Railway Age, Vol. 80.1, p. 279. See also Engineering News-Record, Vol. 96.1, p. 309; Vol. 96.2, p. 803; Railway Review, Vol. 72, p. 937; Vol. 73, p. 134; Vol. 78, p. 187; Railway Age, Vol. 81.1, p. 181.

curves.[57] In that event economy and efficiency will demand elimination of the grades and curves and may even require the building of tunnels or a cut-off.[58] In so far as such a condition exists, the railroad would obviously not be reconstructed with the heavy grades and curves;[59] and when considering the reconstruction cost of the whole property that part of the line must be given merely scrap value. Compare *Kansas City Southern Ry. Co.* v. *United States*, 231 U. S. 423.

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[57] "Curves, it is a matter of long record, have an important relation to speed of trains and cost of transportation as well as to track maintenance, while very sharp curves have a relation to safety of traffic. It has been found that in a 10-year period, with no rail renewals on 1 deg. curves, the rails were renewed once on 2 deg. curves, once or twice on 3 deg., and twice on 4 degree curves. Furthermore, track displacement by traffic has necessitated double or triple the amount of surfacing on the sharper curves, and there is a correspondingly greater wear on driving wheels, so that an engine working regularly over numerous sharp curves has a shorter period of service before it has to be sent to the shop for re-turning the tires. . . ." (Engineering News-Record, 1926—Vol. 96.1, p. 306.) For further comment on improvements in grades and curves, see Railway Age, Vol. 73.1, p. 94; Vol. 75.2, p. 1191; Vol. 78.1, pp. 502, 519; Vol. 79.1, p. 75; Vol. 81.1, p. 551; Vol. 85.1, p. 403; Railway Review, Vol. 77, p. 507; Engineering News-Record, Vol. 94.1, p. 392.

[58] "Tracks, though, are just as important as cars and locomotives in the railroads' program of reducing costs by moving heavier trains faster. The New York Central has just finished spending more than $20,000,000 to get freight trains around Albany and across the Hudson river without having to lower them to the river level and pull them up again. The Illinois Central is spending $16,000,000 for a straighter, flatter and more economical line through Illinois and Kentucky, crossing the Ohio river. The Southern Pacific is spending a similar sum to build its Natron cut-off in Oregon and California to get a better grade over the Siskiyous. The Central of Georgia is spending $5,000,000 to relocate and rebuild its line between Columbus, Ga. and Birmingham. The Central of New Jersey is putting a four-track steel trestle three miles across Newark Bay, a $10,000,000 job. The Louisville & Nashville is spending $5,000,000 or more to raise and move its Gulf Coast line out of the reach of storms. The Southern Ry. is spending a couple of millions to shorten the haul and cut the grades for coal trains moving out of the Appalachian fields to the South Atlantic. These projects represent the kind of improvement that will make it possible in the future to carry on the same line of development that American railroads have followed whenever and wherever they could. Each will pay for itself in reduced transportation costs and, along with hundreds of other improvements will make possible lower rates." Railway Review, 1925—Vol. 77, p. 522.

[59] "If it is reasonable to expect that large amounts of heavy freight will be offered, the question of grades to be adopted is of paramount importance and should be given most careful consideration, and the lightest grades pos-

Perhaps the most common cause of the lessening of service value of parts of railroad plants originally well conceived and still in good physical condition is the progress in the art of rail transportation. Science and invention have wrought since June 30, 1914, such extraordinary improvements in the types of automobiles and aeroplanes that no one would contend that the present service value of such machines should be ascertained by enquiring what their original cost was or what their reproduction cost would be. The progress since June 30, 1914, in the art of transportation by railroad has been less spectacular; but the art has been far from stagnant.[69] In railroading, as in other fields of business, the great rise in the cost of labor and of supplies, and the need of better service, have stimulated not only inventions but also their utilization. Through technological advances instruments of transporta-

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sible should be adopted, even if some increase in distance and considerable increase in cost is caused thereby, because grade and curve resistance govern the tonnage that any locomotive will haul; and as the limit in the size of the locomotive that can be built within clearances of 10 feet wide and 15 feet high has been nearly reached, we must improve our grades to secure lower costs of handling.

"As an illustration of the importance of light grades to increase train loads and thereby reduce cost of movement, we may cite the fact that about three times as much tonnage can be hauled on a grade of two tenths, or 10.6 feet per mile, as on a grade of one per cent, or 52.8 feet per mile, with the same expenditure of energy. On a grade of four-tenth only half as much tonnage can be hauled as on a level with the same power." F. S. Stevens, engineer maintenance of way, Phila. & Reading Ry., Railway Review, 1923—Vol. 72, p. 937.

[69] Alba B. Johnson, president of the Railway Business Association, testifying before the Senate Committee on Interstate Commerce in 1924, said: "The heavier locomotives and cars and the longer trains brought about a new standard of rails, road-bed, bridges and other structures. If it were possible to show on a chart the rise in cost of replacing the railroad as a whole we would still not be telling the whole story, because the increase would represent not only a higher level of wages and prices but a change in the character of the plant. Rails and ballast are heavier, frogs and switches more powerful, bridges stronger. Capacity of track was increased by installation of signal systems. Repairs have been expedited and cheapened by new shop machinery. . . . The 90 pound rail . . . replaces a 60 pound rail. . . . Instead of replacing worn out locomotives with new ones of the same design . . . the railroad orders a type which costs more in original outlay but is expected to earn the difference by the economy with which it does the work. The same principle runs through all the schedules of maintenance of road and equipment and additions and betterments." Railway Age, Vol. 76.2, p. 1039. See, also, Railway Age, Vol. 71.2, p. 1293; Railway Engineering and Maintenance, Vol. 21, p. 274; Railway Review, Vol. 78, p. 601.

tion with largely increased efficiency and economy have been developed. The price of lower operating costs is the scrapping of those parts of the plant which progress in the art render obsolete.[61] The present greatly increased efficiency of the railroads as compared with 1920, their greatly improved credit, and their present prosperity are, in large measure, due to the advances made toward introducing the improved instruments of rail transportation which have become available.[62] Obviously much remains to be done.

The extent of this technological progress may be illustrated by the modern locomotive. The development of the superheater, the mechanical stoker, the booster, and other devices, the increase in the size of the boiler, and other radical changes in size, weight, and design have resulted in the production of engines which are recognized by railway experts as having set such an entirely new standard of efficiency in fuel consumption,[63] in tractive

[61] "A glance at the operating returns of the railways of this country will show that those roads which have added most liberally to their facilities in recent years are today making the best showings." Railway Age, 1921—Vol. 71.2, p. 1295.

[62] The investment account of the railroads of the United States increased between December 31, 1919 and December 31, 1927, $5,152,751,000—that is about 25 per cent. Nearly all of that sum was expended in improving the road, terminals and shop facilities and in replacing outworn and obsolete equipment. During that period the operating ratio improved greatly. The percentage of operating revenues consumed in the several years by operating expenses was: 1920, 94.38 per cent; 1921, 82.71 per cent; 1922, 79.41 per cent; 1923, 77.83 per cent; 1924, 76.13 per cent; 1925, 74.10 per cent; 1926, 73.15 per cent; 1927, 74.54 per cent. The improvement in the operating ratio (after the 1920 rate increase) was due in large measure to the improvement of the railroad plant. This made possible, among other things, a reduction in the number of employees from 2,022,832 in 1920 to 1,735,105 in 1927. The reduction in the operating ratio and in the number of employees has continued in 1928 and 1929. See Monthly Labor Review, Vol. 28, No. 5, p. 215. The number of locomotives on December 31, 1927 was 3,629 less than on December 31, 1919; the number of freight cars 48,089 less. Annual Report of Interstate Commerce Commission for 1928, pp. 111-114.

[63] "There are numerous cases where the unit fuel consumption of locomotives that represented good practice five or six years ago has been reduced almost one-half by locomotives of thoroughly modern design. This saving alone goes far toward paying a return on the additional investment required to produce a thoroughly modern traveling power plant." Railway Age, Vol. 82.1, p. 171.

"As a result of intensive development and improvement, it is not unheard of for a modern locomotive to handle 80 per cent more ton-miles per hour on 50 per cent of the unit fuel consumption formerly considered good locomotive performance." Railway Age, Vol. 84.1, p. 659. See, also, Railway Age, Vol. 72.2, pp. 1295, 1686; Vol. 79.1, p. 256; Vol. 83.1, p. 45.

power,[64] and in speed[65] as to render wasteful, under many conditions, the use of older locomotives, no matter how good their condition. Statistics as to actual performances of the locomotive of today as compared with that built but a few years ago graphically illustrate this great advance in efficiency.[66]

Its economies are compelling. But important changes in roadway and equipment are conditions of its effective use. Heavier locomotives make greater demands on the road structure which carry them. To obviate large maintenance expenses attendant upon frequent repair and replacement the roadway must be made more durable.[67] To this end rails of heavier section,[68] and of increased

[64]Ralph Budd, president of the Great Northern Ry., in an address delivered in 1927, said: "It is just beginning to be realized that while in principle the steam locomotive is the same as it was a few years ago, the efficiency of the locomotive, as exemplified by the modern type, has been practically doubled, measured in ton-miles of transportation per unit of fuel consumed. Railway Age, Vol. 83.1, p. 250. See, also, Railway & Locomotive Engineering, Nov., 1927, p. 326; Railway Age, Vol. 78.1, p. 26.

[65]"By producing more ton miles of transportation per hour it reduces the total number of locomotives required; it postpones the time when increased investment in tracks and most other fixed properties to increase capacity will be necessary; it reduces the number of employees required; or that would be required in train service; it reduces the number of employees required in signaling and dispatching trains—in fact, there is hardly any form of fixed charges or transportation expenses that is not made less than it otherwise would be by locomotives that produce an increased output of ton miles per locomotive hour." Railway Age, Vol. 81.1, p. 493. See, also, Engineering News-Record, Vol. 98.1, p. 58; Railway Review, Vol. 74, p. 203; Vol. 78, p. 601; Railway Age, Vol. 83.1, p. 240.

[66]See Transactions of American Society of Mechanical Engineers (1921), Vol. 43, p. 334; Railway Age, Vol. 78.1, p. 26; Vol. 81.1, p. 487; Vol. 82.1, p. 928; Vol. 83.1, p. 322; Vol. 84.1, p. 659; Vol. 84.2, p. 1153; Railway and Locomotive Engineering, Feb., 1927, p. 42; Nov., 1927, p. 326; Feb., 1928, p. 41; Railway Mechanical Engineer, July, 1927, p. 405; Railway Review, Vol. 77, p. 521. Compare 13 The Commonwealther, No. 2 (April, 1929), pp. 14, 19.

[67]"There has been a steady development in the track structure in recent years. Rail of 75-lb. and 85-lb. sections have given way to that of 110-lb., 115-lb. and 130-lb. on many divisions; cinder ballast has been replaced by gravel and gravel by stone; stronger joints have been installed and more tie plates, rail anchors and other accessories used. At the same time and in spite of these improvements the impression remains among those most directly in touch with maintenance work that the roads can still afford to go much further in this direction with economy." Railway Engineering and Maintenance, 1926—Vol. 22, p. 174. See, also, Ibid., p. 190.

[68]Rail of 85 lb. section or lighter was the type most commonly used prior to 1914. Railway Age, 1921—Vol. 70.2, p. 998. 68.8 per cent of the 2,-

length are adopted.[69] Anti-creepers are freely used to prevent rail movement.[70] Larger ties are selected; and they are treated to prevent deterioration.[71] Ballast is made deeper and heavier; and of gravel or stone rather than of cinders.[72] Bridges are of stronger construction.[73] And to facilitate the movement of traffic, watering stations [74] and automatic signals[75] of improved design are introduced. Moreover, the effective employment of the modern locomotive involves ordinarily the use of larger cars of steel construction, displacing the wooden car of small capacity with which so many

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806,930 tons of rail rolled in the United States in 1927 was of 100 lb. section or heavier. Railway Age, 1928—Vol. 84.2, p. 900. See, also, Railway Age, Vol. 71.1, p. 413; Vol. 78.1, p. 181; Vol. 79.1, p. 393; Railway Review, Vol. 74, p. 101.

[69] "The American Railway Association has announced that new specifications increasing the length of standard rails from 33 to 39 ft. have been approved by that organization. This change will result in a 16 per cent reduction in the number of rail joints and a saving of about one-sixth of the total of bolts, nuts, angle bars and spring washers now required." Engineering News Record, 1925—Vol. 95.2, p. 816.

[70] "The rail anti-creepers thus saved 26,400 hours of labor on this thirty mile stretch in one year entirely aside from the saving arising from the lessening of damage to rail, fastenings and equipment caused by wide expansion and uneven line and surface where the rail was permitted to creep. As a result of the test the entire track was securely anchored and the practice inaugurated of anchoring all double track and whatever single track showed a tendency to creep." Railway Engineering and Maintenance, 1923—Vol. 19, p. 114.

[71] See Engineering News Record, 1925—Vol. 94.2, p. 844; Railway Engineering and Maintenance, 1926—Vol. 22, p. 15.

[72] See Engineering News Record, 1925—Vol. 94.2, p. 674; Vol. 95.2, p. 958; Railway Age, 1928—Vol. 84.1, p. 3.

[73] In noting that the Chicago & Northwestern Railway is replacing a bridge which, "while still as good as the day it was built", is too light for the heavier loads now being carried, the Railway Age observes, "This is characteristic of many units of railway construction which, if properly maintained, show little or no evidences of wear but must give way just as truly as though they were out." (1924—Vol. 77.2, p. 918.)

[74] "More efficient pumping equipment is rapidly replacing antiquated machinery." Railway Engineering and Maintenance, 1926—Vol. 22, p. 132. See, also, Railway Age, 1928—Vol. 84.2, p. 1329.

[75] "The improvement in equipment and in methods of locating signals to meet the requirements of modern train operation, have to a great extent rendered obsolete much of the automatic signaling placed in service 20 years or more ago." Railway Age, 1927—Vol. 83.2, p. 1144.

of the railroads were equipped in 1914.[16] Engine terminals and car-shops built prior to 1914 are, in many cases, inadequate[17] for the efficient and economical handling, housing and repairing of the modern locomotives and cars, and must be replaced to prevent curtailment of the productive capacity of the rolling-stock by needless idle hours while awaiting service or repair.[18] And the waste in-

[16] "An investigation made by one railroad a few years ago disclosed the fact that the retirement of a large number of cars of all-wood construction, and their replacement with new cars of steel or steel underframe construction, would effect a saving in maintenance alone which in five years it was estimated would amount to about 68 per cent of the entire cost of the new equipment. . . . A thorough study of the economics of freight car maintenance and operation today would lead to equally startling conclusions with respect to the 300,000 or 400,000 weak and unsuitable freight cars which are still in service." Railway Age, 1921—Vol. 71.1, p. 52, 53. See, also, Railway Age, Vol. 70.1, p. 490; Vol. 72.2, p. 1515; Vol. 73.2, p. 645; Vol. 74.2, p. 989; Vol. 75.2, p. 1023; Vol. 78.2, p. 1443; Vol. 79.1, p. 186; Vol. 80.1, p. 462; Vol. 80.2, p. 1301; Vol. 82.2, p. 1556; Vol. 85.2, p. 916; Railway Review, Vol. 72, p. 1073; Vol. 77, p. 522; Vol. 78, p. 767.

[17] "The advent of the overhead, electric traveling crane, as well as the modern smoke exhausting devices and other such improvements, have thrown many of the older type buildings into the obsolete class. . . . It is very difficult to add modern facilities to an existing plant which is designed and constructed without the contemplation of such added facilities. . . . It is impossible to install crane runways and other labor saving devices in existing buildings, due to lack of clearance and insufficient strength in the existing structures." Railway Review, 1921—Vol. 68, pp. 449, 450.

"The enlargement of locomotive terminal facilities and the modernization of locomotive terminal equipment is admittedly the most needed physical improvement in the railway structure of today . . . there are many railways on which the locomotive terminals have received practically no improvements for more than fifteen years." Railway Review, 1924—Vol. 74, p. 151.

"These are days of rapid improvement in methods, in which many facilities become obsolete long before their normal service life has been reached. This is particularly true of terminal facilities." Railway Age, 1927—Vol. 83.2, p. 966. See, also, Railway Age, Vol. 66.2, p. 994; Vol. 68.2, p. 1702; Vol. 69.2, p. 729; Vol. 71.2, p. 890; Vol. 76.1, pp. 269, 314; Vol. 76.2, p. 1494; Vol. 78.2, p. 1071; Vol. 83.1, p. 249; Railway Review, Vol. 72, pp. 112, 495; Vol. 77, p. 522.

[18] "The real terminal problem, therefore, is that of providing facilities that will enable the railways to effect some reduction in the enormous investment in idle locomotives now held at terminals." Railway Review, 1923—Vol. 72, p. 176. See, also, Railway Review, Vol. 70, p. 344; Railway Age, Vol. 68.2, p. 1745; Vol. 74.2, p. 1354; Vol. 75.2, p. 1141.

cident to the use of shop-tools and machinery long since rendered obsolete by progress in the art must be stopped.[79]

Thus, the efficient post-war railroad plant differs widely even from the efficient one of 1914. That during the recapture period here in question the plants of most of the railroads of the United States built before the War were lacking in improved instruments of transportation made available by recent progress in the art is of common knowledge.[80] That this is true even today of many of the railroads will not be denied.[81] To the extent that there is inef-

[79] "It is said that 'any machine that will run' is good enough for a railroad shop and while most railroad men realize the falsity of this statement, it is seemingly borne out by the large number of obsolete, worn-out machines now in use." Railway Age, 1921—Vol. 71.1, p. 1.

"Without doubt, railroad net earnings are appreciably reduced by the many obsolete and inefficient machines now used in railroad shops and engine-houses." Railway Age, 1923—Vol. 74.1, p. 211.

"The tools to be seen on any trip of inspection through your own shops or those of other roads, are in many cases a generation outgrown." Railway Review, 1924—Vol. 74, p. 733. To the same effect, see Railway Age, Vol. 67.2, p. 1101; Vol. 69.1, p. 90; Vol. 70.1, p. 222; Vol. 72.2, p. 1205; Vol. 74.2, p. 1082; Vol. 74.2, pp. 1082, 1351; Vol. 81.2, p. 629; Vol. 83.2, p. 706; Vol. 85.1, p. 599.

[80] "Little attention is ordinarily given to obsolescence or the economy of replacement with more modern equipment solely because of the reduced cost of operation with the newer units. In their failure to appreciate this principle the railways trail far behind many of the utilities with the result that they are paying the penalty in high operating costs. . . . The engineering and maintenance of way department is cluttered with equipment that it cannot afford to operate." Railway Engineering and Maintenance, 1926—Vol. 22, p. 2. To the same effect, see Railway Age, Vol. 81.2, p. 621, p. 1091; Railway Review, Vol. 68, p. 784.

"Our railroads were built for the locomotive of the past. They were and are operated in accordance with the locomotive of the past. . . . It remains to do on railroads the things manufacturers have done—to build better locomotives, improve old ones and to operate them according to the new conditions these improvements themselves have created." Railway Age, 1922—Vol. 72.1, p. 178. See, also, Transactions, American Society of Mechanical Engineers (1919), p. 999; Railway Review, Vol. 70, p. 43; Engineering News-Record, Vol. 98.1, p. 58; Railway Age, Vol. 69.2, p. 729; Vol. 76.1, p. 269; Vol. 79.1, pp. 256, 505; Vol. 81.1, pp. 45, 123, 492; Mechanical Engineering, Vol. 43.1, p. 311; Railway Engineering & Maintenance, Vol. 22, p. 2.

[81] In 1920 there were 68,942 locomotives in use on American Railways. (41st Annual Report of the Interstate Commerce Commission, p. 107.) Of these 12,000 were reported to be obsolete by the Railway Age (Vol. 68.1, p. 33).

ficiency in plant, there was and is functional depreciation, lessening actual value. That this functional depreciation, arising through external changes, through competitive means of transportation, and through progress in the art of transportation, may, in respect to a particular railroad, have become so large as to more than counterbalance that increase in its actual value which would otherwise flow from the rise in the price level since 1914, seems clear.

It may be urged that the continued use of the inefficient plant[23] and the repairing rather than replacement of its antiquated parts,[24]

Of the 2,648 locomotives in service on the B. & O., on December 31, 1920, 633 were more than twenty years old. On the Southern, 501 locomotives out of a total of 1,865; on the Erie, 474 out of 1540; on the Seaboard Air Line, 142 out of 581; on the Lackawanna, 57 out of 757; and on the Pennsylvania, 624 out of a total of 7,599, exceeded that age. In 1926 it was estimated by the editor of the Railway Age that 68 per cent of the locomotives then in use were over ten years old. (Railway Age, Vol. 81.1, p. 493.) In 1928 there were about 65,000 locomotives in use. Of these, according to the Railway Age (Vol. 84.2, p. 950): "There are probably between 15,000 and 20,000 locomotives in this country, 20 years old or older, which have practically none of those features of locomotive equipment that are now regarded as the ear-marks of modern motive power."

[24] E. g. Locomotives no longer capable of pulling heavy loads, instead of being scrapped or rebuilt, have frequently been continued in use for branch-line or suburban service; or in switch-yards. It is said that their use in such passenger service has been rendered wasteful by the comparative economies of the modern motor rail-car. See Railway Age, Vol. 72.1, p. 315; Vol. 72.3, p. 1372; Vol. 76.2 p. 975; Vol. 82.1, p. 563; Vol. 83.1, p. 601; Vol. 84.1, p. 753; Railway and Locomotive Engineering, Feb., 1928, p. 37. And "just what measure of economy is effected by retaining locomotives in yard and work train service after their condition has become such that they are no longer capable of performing their assigned duties in road service, is not apparent, to say the least." Railway Review, 1924—Vol. 74, p. 771. The replacement of antiquated power with modern locomotives in its switch-yards by the Seaboard Air Line Ry. is estimated to have effected a savings in operating costs which will pay an annual return of fifty per cent on the investment in the new engines. Railway Age, 1927—Vol. 83.1, p. 45. See, also, Railway Age, Vol. 79.1, p. 209; Railway Review, Vol. 75, p. 396.

[25] "There is too much tendency to patch up and perpetuate an obsolete, inadequate and uneconomical unit of equipment rather than to retire it and purchase new equipment to derive the benefit of the advanced state of the art in building." F. H. Hardin, assistant to the president, New York Central Ry. (Railway Age, 1926—Vol. 81.2, p. 670, 671.) To the same effect, see Transactions, American Society of Mechanical Engineers, 1925—Vol. 47, p. 179; Railway Review, Vol. 78, pp. 195, 271.

has been due to lack of capital and insufficient revenues.[44] Such an excuse for failing to install the improved plant might have been conclusive if prudent investment had been accepted as the measure of value. But the fact that the management may have been wholly free from blame in continuing to use the inefficient parts obviously does not add to their actual value. The actual value of an existing plant, and the difference between its value and the present cost of constructing a modern efficient plant which will render the service, is precisely the same whether the continued use of the obsolete part was due to lack of capital, or to lack of good judgment, or to somnolence on the part of the management. As was said in *Board of Commissioners* v. *New York Telephone Co.*, 271 U. S. 23, 32: "Customers pay for the service, not for the property used to render it." Only the then service value of the property is of legal significance under the rule of *Smyth* v. *Ames*.

It may also be urged that such functional depreciation of the railroad plant since 1914 is allowed for in the depreciation customarily estimated by the Commission. But this is not true. Functional depreciation prior to June 30, 1914, was included when valuing as of that date the then property of the railroads. But the instructions of the Commission provided that functional depreciation arising after that date should not be considered unless "imminent." And the Commission made clear that it did not intend by the term to include functional depreciation of the character described above arising from external causes, from the competition of new methods of transportation, from the extraordinary urban growth, from the need of new economies arising from the largely increased labor and fuel costs, and from other incidents of the war and post-war developments in industry and transportation. *Texas*

[44]Samuel Rea, president of the Pennsylvania Railroad, in an address before the eastern division of the U. S. Chamber of Commerce delivered in 1923, said: "From an engineering viewpoint there are many improvements which could be adopted, or the present use of which could be greatly extended, and which would very materially increase the efficiency and reduce the cost of railroad operation. The initial installations, however, would require the investment of very large sums of money, and it is difficult to see how these sums can be raised. . . ." Railway Review, Vol. 74, p. 262, 263. To the same effect, see statement of R. H. Aishton, president, American Railway Association. Railway Review, 1921—Vol. 68, pp. 783, 784.

Midland R. R., 75 I. C. C. 1, 47-52, 124-130. Compare, *Depreciation Charges on Steam Railroads*, 118 I. C. C. 295.[25]

If weight is to be given to reproduction cost in making the valuation of any railroad for rate making purposes under § 19a and § 15a, there must be a determination of the functional depreciation of the individual plant as compared with a modern, efficient plant adequate to perform the same service. To make such a determination for any railroad involves a detailed enquiry into the character and condition of all those parts of the plant which may have reduced functional value because of the post-war changes affecting transportation above referred to, and also into the character and the volume of the carrier's business. For the efficient plant means that plant which is economical and efficient for the particular carrier in view of the peculiar requirements and possibilities of its own business. To make such a determination justly, the Commission must have the data on which a competent and vigilant management would insist when required to pass upon the advisability of making capital expenditures. And the Commission would be obliged to give them the same careful consideration. The determination of the extent of functional depreciation is thus a very serious task; a task far more serious than that of determining merely physical depreciation.

To make such a determination of functional depreciation annually for each of the railroads of the United States would be a stupendous task, involving perhaps prohibitive expense. To make the necessary decisions promptly would seem impossible, among other reasons, because railroad valuation is but a small part of the many duties of the Commission. On the other hand, to adjust rates so as to render a fair return, and to provide through the recapture provision funds in aid of the weaker railroad, are tasks which Congress deemed urgent; and which must be promptly performed if its purpose is to be achieved. Obviously Congress intended that in making the necessary valuations under § 15a a

[25] e. g. "With respect to account No. 3, 'Grading,' it appears that the retirement of grading is a contingency sufficiently remote in most cases so that it is not practicable to treat it as depreciable property." (118 I. C. C. 295, 342.)

method should be pursued by which the task which it imposed upon the Commission could be performed. Compare *New England Divisions Case*, 261 U. S. 184, 197. Recognizing this, the Commission construed § 15a as it had paragraph (f) of § 19a. That is, as permitting the Commission to make a basic valuation as of some general date (June 30, 1914 was selected); and to find the value for any year thereafter by adding to or subtracting from the 1914 value the net increases or decreases in the investment in property devoted to transportation service as determined from the carrier's annual returns with due regard to the element of depreciation.[56]

Eighth. The significance, in connection with current reproduction costs, of the requirement in § 15a that value be ascertained "for rate making purposes" as there defined becomes apparent when the position of railroads, in this respect, is compared with that of most local utilities enjoying a monopoly of a necessary of life. The fundamental question in the *Southwestern Bell* case was one of substantive constitutional law, namely: Is the rate-base on which the Constitution guarantees to a public utility the right to earn a fair return the actual value of the property at the time of the rate hearing or is it the cost or capital prudently invested in the enterprise? The Court decided that the rate-base is the actual value at the time of the rate hearing. That proposition of substantive law the Commission undertook to apply to the facts presented in the case at bar. Recognizing that evidence of increased reconstruction costs is admissible for the purpose of showing an actual value greater than the original cost or the prudent investment, it found in respect to some of the carrier's property that the evidence of enhanced reconstruction cost was persuasive of higher present value. As to the rest of the property, it held that the evidence was neither adequate nor persuasive.

Of both railroads and the local utility it is true, under the

[56] "Upon the completion of the valuation herein provided for the Commission shall thereafter in like manner keep itself informed of all extensions and improvements or other changes in the condition and value of the property of all common carriers, and shall ascertain the value thereof and shall from time to time, revise and correct its valuations, showing such revision and correction classified and as a whole and separately in each of the several States and Territories and the District of Columbia which valuations, both original and corrected, shall be tentative valuations and shall be reported to Congress at the beginning of each regular session."

Compare Frederick K. Beutel, "Due Process in Valuation of Public Utilities," 13 Minnesota Law Review 409, 426-427.

rule of substantive law adopted in the *Southwestern Bell* case, that value is the sum on which a fair return can be earned consistently with the laws of trade and legal enactments. But the operative scope upon railroads of the limitations so imposed upon the rates, and hence upon values, is much greater than in the case of local utilities.[27] Rail rates are being constantly curbed by the competition of markets and of rival means of transportation. Rail rates are curbed also by the influence of high rates upon the desires of individuals. The public can, to a considerable extent, do without rail service. If the rates are excessive traffic falls of. Thus, when passenger rates are too high travel is either curtailed or people employ other means of transportation. But the service rendered by a local water company in a populous city is practically indispensable to every inhabitant. There can be no substitute for water and to escape taking the service is practically impossible; for an alternative means of supply is rarely available. Even the common business incentive of establishing low prices in order to induce an enlarged volume of sales is absent; since the volume of the business done by a water company will not be appreciably affected by a raising or lowering of the rates, except in so far as water in quantity is used for manufacturing purposes. In other words, the commercial limitation upon rates —what the traffic will bear—is to a large extent absent in the case of such a local monopoly. The city water user must submit to such rates as the utility chooses to impose, unless they are curbed by legislative enactment.

The legal limitations upon rates (so potent in the case of railroads) are, in the main, inoperative in the case of such a water company. Rail rates are sometimes held illegal because the exaction is greater than the value of the service to the shipper. There is in fact no corresponding limitation upon water rates. The charge is so small, as compared with the inconvenience which would be suffered in doing without the service, that the worth to the water taker could rarely be doubted. The prohibition of discrimination against persons, places, or articles of commerce, which so frequently interferes to prevent railroads from charging higher rates, although

[27] Compare "Railroad Valuation" by Leslie Craven, counsel, Western Group, [Railroad] Presidents' Conference Committee on Federal Valuation of Railroads, 9 Amer. Bar Assn. Journal, 681, 683, 684.

the traffic would easily bear them, affords no protection to city water users; and seldom causes a loss of revenue to the water company. There is in respect to the water rates no prohibition comparable to that embodied in the long and short haul clause, which has an important effect in limiting rail rates. Hence, under the rule of substantive law declared in the *Southwestern Bell* case, practically the only limitation imposed upon water rates is the denial to the utility of rates which will yield an excessive return upon the actual value of the property. In applying that rule of substantive law, the then actual cost of reproducing the plant would (assuming it to be efficient) commonly be persuasive evidence of its actual value, as the current cost of reproducing the vessel was held to be in *Standard Oil Co.* v. *Southern Pacific Co.*, 268 U. S. 146, 156.

It is true that in the *Southwestern Bell* case the Court passed also upon a subsidiary question—the weight and effect of the evidence of reconstruction cost. But the question of adjective law arose upon a record very different from that in the case at bar; and the action of the Commission here is entirely consistent with that decision. In the *Southwestern Bell* case direct testimony as to the then value of the property was introduced. The efficiency of the plant was unquestioned. Witnesses had testified both to the actual cost of constructing identical property at that time; and that the specific property under consideration was worth at least 25% more than the estimate of the state commission. The Court believed those witnesses. Concluding that this direct and uncontradicted evidence had been ignored by the state commission because of error as to the governing rule of substantive law, this Court set aside the rate order as confiscatory, saying: "We think the proof shows that for the purposes of the present case the valuation should be at least $25,000,000." (262 U. S. 276, 288.)

The action of the Commission in the case at bar was consistent also with *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400, and *Bluefield Water Works Co.* v. *Public Service Commission*, 262 U. S. 679. Each of these water companies enjoyed a local monopoly of an indispensable service. In order to provide a substitute, the community would have either to take the utility's property by eminent domain; or, if it was free to do so, build a competing plant. There was practically no commercial limitation upon the earning power of these water companies except the extent of the local

market; and practically no legal limitation except the requirement that the rates charged should not be so high as to yield an excessive return upon the actual value of the utility's property. The current cost of constructing then a plant substantially like the utility's (assuming it to be efficient) would be persuasive evidence of its actual value. For upon that issue, concerning a local water monopoly, the enquiry would naturally be: How much would it cost the community to substitute for the private monopoly a publicly owned plant? But evidence of the cost of reconstructing a railroad built before 1914 might, for the reasons stated above, be no indication whatever of its post-war value for rate making purposes under § 15a. And where, as in the case at bar, the probative force of the evidence may be considered free from any question of confiscation, the rule declared in *Ohio Valley Water Co.* v. *Ben Avon*, 253 U. S. 287, which requires in confiscation cases a judicial determination on the weight of the evidence, does not apply.

Ninth. A further question of construction requires consideration. It is suggested that, even if the Commission is not required to give effect to the higher price level when finding values for rate making purposes under §15a, it must do so when fixing the amount of the excess income to be recaptured from a particular railroad under paragraphs 6 to 18. The language of the section affords a short answer to that contention. The valuation prescribed in paragraph 4 is declared to be "for the purpose of this section"—that is, for recapture purposes as well as for rate making. And paragraph 6, which provides for the recapture, declares: "The value of such railway property shall be determined by the Commission in the manner provided in paragraph (4)."

The recapture of excess earnings and the establishment of reserves are a part of the process of establishing such rates

"that carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management . . . earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation." (par. 2.)

The recapture and reserve are the readjustment made necessary:

"Inasmuch as it is impossible (without regulation and control in the interest of the commerce of the United States considered

as a whole) to establish uniform rates upon competitive traffic which will adequately sustain all the carriers who are engaged in such traffic and which are indispensable to the communities to which they render the service of transportation, without enabling some of such carriers to receive a net railway operating income substantially and unreasonably in excess of a fair return upon the value of their railway property held for and used in the service of transportation, it is hereby declared that any carrier which receives such an income so in excess of a fair return, shall hold such part of the excess, as hereinafter prescribed, as trustee for, and shall pay it to, the United States." (par. 5.)

Thus, the direction in the order here challenged to pay or reserve the excess over 6 per cent of the amounts earned from 1920 to 1923 by rates established pursuant to *Ex parte 74, Increased Rates, 1920*, 58 I. C. C. 220, is merely a readjustment of those rates.

Tenth. The question remains whether the Commission, in valuing the structural property acquired before June 30, 1914, abused its discretion by declining to give effect to the evidence of enhanced reconstruction cost.** The O'Fallon insists that the Commission, in fact, adopted a mathematical formula; that it declined to determine the present value of the carrier's property in accordance with "the flexible and rational rule of *Smyth* v. *Ames*, under which value is a matter of judgment to be determined by a consideration of all relevant facts and circumstances"; that it erected "an arbitrary standard of its own based on no relevant facts"; that if it had given consideration to all relevant facts and circumstances, including as one its cost of reproduction at current prices, "the value found must have been substantially higher"; and that its primary purpose was to determine the amount of the investment in the carriers' property. In short, the O'Fallon asserts that the Commission refused to find actual value; and instead, found the prudent investment.

In support of this assertion, the O'Fallon points to the statement in the report that "the value of the property of railroads for rate-

**The nature of the order here challenged is described in the report which accompanied it: "At the outset it is to be borne in mind that in no sense can these proceedings properly be treated as lawsuits. No issue is raised between parties. There is no controversy between disputants, each contending for protection of its rights. They are purely administrative proceedings wherein we are following the direction of Congress to create a contingent fund to be used in furtherance of the public interest in railway transportation." Excess Income of St. Louis and O'Fallon Ry. Co., 124 I. C. C. 1, 7.

making purposes . . . approaches more nearly the reasonable and necessary investment in the property than the cost of reproducing it at a particular time." (p. 41.) The statement just quoted does not mean that the Commission accepted prudent investment as a measure of value. It means merely that the Commission deemed the estimated original cost a better indication of actual value than the estimated reconstruction cost. While this Court declared in the *Southwestern Bell* case that prudent investment is not to be taken as the measure of value, it has never held that prudent investment may not be accepted as evidence of value, or that a finding of value is necessarily erroneous if it happens to be more nearly coincident with what may be supposed to have been the cost of the property than with its estimated reproduction cost. The single-sum values found by the Commission do not coincide either with the estimated prudent investment or with the estimated reconstruction cost. They are much nearer the estimated original cost of the property than they are to its estimated reproduction cost. But the values found do not conform to any formula."

The general method pursued by the Commission in reaching its conclusion closely resembles that approved by the Court in *Georgia Ry. & Power Co.* v. *Railroad Commission*, 262 U. S. 625, 629-630. It appeared that the O'Fallon Railroad had been constructed long prior to June 30, 1914. The Commission had before it "the cost of reproduction new of the structural portion of this property estimated on the basis of our 1914 unit prices, coupled with the knowledge that costs of reproduction so arrived at were not greatly different from the original costs". As bearing upon the value of those parts of the Railroad's property which were added or re-

"The O'Fallon has calculated that the single-sum values found by the Commission for the several recapture periods exceed by $32,660.88 the sums of the following amounts: (1) the cost of reproduction less depreciation, as of June 30, 1919, of all property exclusive of lands and working capital at 1914 or pre-war prices; (2) the amount by which the actual cost of the property installed between July 1, 1914, and June 30, 1919, exceeded its cost of reproduction at 1914 prices; (3) the present value of the land; (4) the allowance for working capital; (5) the actual investment in additions and betterments, less retirements, subsequent to June 30, 1919. The calculation is correct; but the assertion that the $32,660.88 (which is about 5% of the aggregate of the other amounts) must have been allowed as overhead is without foundation in the record and is inconsistent with statements in the Commission's report.

placed later the Commission had the actual cost. As bearing on the then value of the railroad land it had current values of adjacent lands. It had evidence concerning the railroad and the character and volume of its traffic, the working capital, revenues and expenses. It had evidence of increased price levels after 1914 and estimates of current reproduction costs during the recapture periods.

The carrier insisted that physically the property had appreciated more than it had depreciated; and urged the Commission to take as the basic measure of value the "cost of reproduction new at current prices to the exclusion of everything else, or at least of everything that might tend to a lower value." (124 I. C. C. 28.) This the Commission declined to do. It gave full effect to increased current market values in determining the value of the land. It gave to the additions and betterments made after June 30, 1914, a value approximating their cost less physical depreciation.[90] But, in respect to structural property and equipment acquired before June 30, 1914, it declined to give weight to the evidence introduced to show current reproduction costs greater than those of 1914. It concluded, despite the estimates of higher reconstruction costs, that, except for the additions, the actual value of this part of the O'Fallon Railroad had not increased; and it found the single sum value for rate making purposes in 1920 to be $856,065; in 1921, $875,360; in 1922, $978,874; in 1923, $978,246.

The Commission recognized, as stated in *Minnesota Rate Cases*, 230 U. S. 352, 434, that the determination of value is "not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts." *Georgia Ry. & Power Co.* v. *Railroad Commission*, 262 U. S. 625, 630. It states that "it considered and weighed carefully, in the light of its own knowledge and experience, each fact, circumstance and condition called to its attention on behalf of the carrier" as well as the evidence otherwise introduced; and that "from this

[90] "The method which we therefore find logical and proper for determining the value in the subsequent recapture periods is to add to or subtract from the 1919 value the net increases or decreases in the investment in property devoted to transportation service as determined from the carrier's returns to valuation order No. 3, with due regard to the element of depreciation." 124 I. C. C. 3, *passim*, particularly pp. 37, 42.

accumulation of information we have formed our judgments as to the fair basic single-sum values, not by the use of any formula but after consideration of all relevant facts." The report makes clear that its finding was the result of an exercise of judgment upon all the evidence; that the Commission accorded to the evidence of reconstruction cost all the probative force to which it deemed that evidence entitled on the issue of actual value; and that it considered, as bearing upon value, not only the probable cost and the estimated reproduction cost, but also "descriptions of the carrier, of its traffic, of the territory in which it operates, its history, and summaries of the results of its operation." (p. 25.)

The difficulties by which the Commission was confronted when requested to apply the evidence of reproduction cost can hardly be exaggerated. In the first place, the evidence was of such a character that it did not satisfactorily establish what would have been the current cost of reproduction during the recapture periods.[9] During the years here in question there was practically no con-

[9] As to the evidence the Commission said: "The use of cost of production is by no means free from practical difficulties. For example, the record here shows that there was a dearth of reliable data from which an accurate estimate of such cost could be made for the period 1920 to 1923. In proof of this assertion reference need only be made to the sources of the data relied upon by the witnesses both for the bureau and for the carriers. Their estimates for those years were founded in large part upon manufacturers' records and price statistics appearing in various publications, and to a lesser extent upon cost of construction actually incurred by railroads in that period. There was, in fact, very little new railroad construction in those years.

"Synthetic estimates of cost of reproduction based upon statistics showing price and wage changes do not make allowance for improved methods of assembly and construction. As will hereinafter be more fully indicated, we found in *Texas Midland Railroad, supra*, [75 I. C. C. 1] at page 140, that the increase in the cost of labor and materials between 1900 and 1914 was largely offset by improvement in the art of construction. How far there may have been a similar offset, so far as costs in the period from 1920-1923 are concerned, is not disclosed of record." (p. 29.)

And later (p. 41): " . . . even if the cost of reproduction new in 1920 were to be regarded as a controlling element there is not in the present record evidence showing what it might have cost to reproduce the property of the O'Fallon at that time. The only evidence in this respect is that of the relation of general prices in 1914 and in 1920 and the other recapture years."

struction of new lines.[93] Thus, the current cost of reproduction for those years had to be obtained by using index figures as the basis for a guess as to what it would cost to build then the identical railroad. To give to such figures effect as proving what it would then have cost to reproduce the O'Fallon Railroad, it must be assumed that there had not been introduced since June 30, 1914, new cost-saving methods of construction which would overcome, in whole or in part, the effect of the higher price level upon the cost of reproducing the identical property. This, in view of its experience, the Commission properly declined to do.[93] In the second place there was a lack of evidence to show to what extent, if any, higher reconstruction cost, in the several recapture periods, implied a value higher than that theretofore prevailing.[94] The Commission believed that it could act only on proof; that it was not required or permitted to base findings on conjecture; and that to assign, under the circumstances, any weight to the evidence of reconstruction cost would be mere conjecture.

Moreover, the Commission had, through its valuation department, special knowledge of the property of this carrier. It had acquired necessarily in the performance of its many duties the general knowledge, already referred to, concerning changes in transportation conditions and of the advances in the art; and it knew how great

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[93]Compare United States v. Boston, Cape Cod & New York Canal Co., 271 Fed. 877, 889, where the Court said that the jury "should not consider the evidence of reconstruction cost upon the question of value, unless they were satisfied that a reasonably prudent man would purchase or undertake the construction of the property at such a figure."

[93]"Costs of railroad building, owing to improvements in methods and economies thereby effected, did not vary greatly during the period of 20 years preceding 1914, although the prices of labor and material fluctuated. There is no testimony here as to how much it cost to build any railroad or any substantial part of one in any recapture periods, and for that reason it is impossible to make a comparison of costs in the two periods. It is not safe to assume, as the O'Fallon has assumed, that costs of building railroads have varied in recent years in direct ratio to the variation in costs of commodities in general use, or in the costs of materials or labor generally. The fallacy of basing reproduction cost upon price curves or ratios is clearly indicated by the tabulations introduced by the carrier." (p. 41.)

[94]The Commission says (p. 40): "Weighing the figures previously mentioned in the light of these considerations and the entire record, and viewing the carrier as a common carrier in successful operation and with an established business, we conclude that the value for rate-making purposes of the entire common carrier property of the O'Fallon on June 30, 1919, was $850,000."

was their effect upon the actual values of railroad property. The value of the O'Fallon Railway not having been finally ascertained under § 19a, it was obliged by paragraph 4 to utilize "the results of its investigation under section 19a of this Act in so far as deemed by it available." The evidence introduced in the recapture proceedings showed, among other things, that of the five locomotives in the O'Fallon's service, December 31, 1920, one had been built as early as 1874, and that their average age was 20.8 years; also that the aggregate outlays for additions and betterments in the railroad, less small retirements, had in eleven years been only $98,148.25. The O'Fallon did not introduce any evidence bearing upon functional depreciation of the property. The Commission may reasonably have concluded that, even if there had been introduced persuasive evidence that the cost, during the recapture periods, of reproducing new the identical plant approximated the rise in the general price level, still the actual value of the O'Fallon Railway, as it existed June 30, 1914, had not increased, because the functional depreciation plus the physical depreciation since that date counterbalanced fully what otherwise might have been the higher value of the plant.

The O'Fallon urged that its large net earnings during the recapture periods and earlier fully established a higher value, independently of the evidence of reproduction cost. This contention ignores the peculiar character of the property. The Railroad, which is owned by the Adolphus Busch estate and family and lies wholly in Illinois, operates about 9 miles of main line from two coal mines also owned by the Busch estate and family, to the tracks of the Terminal Company in East St. Louis. There are 12 miles of yardage tracks, located largely at the Busch mines. While the Railroad is legally a common carrier, it is actually an industrial railroad. Ninety-nine per cent of its revenues are derived directly from the carriage of coal; and of the remaining one per cent, about half appears to come from a payment of $300 a month made by the Busch coal company for carrying its miners to and from its mines. Besides the coal from the Busch mines there is a substantial, but diminishing amount carried under a long time contract, from two mines located on an electric road, the East St. Louis and Suburban Railway, which crosses the O'Fallon. This coal it carries from the junction to East St. Louis. *See St. Louis & O'Fallon Ry. Co.* v. *East St. Louis & Suburban Ry. Co.*, 81

I. C. C. 538. Obviously the value of this railroad property is wholly dependent upon the operation of the mines.

How long the four mines will continue to be operated was and still is entirely uncertain. Their product is subject to the competition of 221 other bituminous coal mines in Illinois. These, which are all located on other railroads, enjoy low rates to St. Louis. See *Perry Coal Co.* v. *Alton & Southern R. R.*, 5 Illinois Commerce Commission 461. The vicissitudes of coal mining, the diminishing use of coal since the war because of increased fuel efficiency, the competition of oil as fuel, and the growing use of hydro-electric power are matters of common knowledge; as are the diminishing operations during recent years of the Illinois coal mines as compared with the mines in non-union territory.[95] Moreover, the decline in the volume of traffic, the reduction in coal rates made by *Reduced Rates, 1922*, 68 I. C. C. 676, and the growing expenses of the carrier due to increased payroll, were put in evidence by it. In view of these facts, the Commission was clearly justified in refusing to find that the Railroad had a higher value than in 1914, although the net earning as reported showed a return for the earlier period averaging 7½ per cent upon the amount claimed as reproduction cost.

This Court has no concern with the correctness of the Commission's reasoning on the evidence in making its findings of fact, since it applied the rules of substantive law prescribed by Congress and reached its findings of actual value by the exercise of its judgment upon all the evidence, including enhanced construction costs. *Virginian Ry. Co.* v. *United States*, 272 U. S. 658, 665-666; *Assigned Car Cases*, 274 U. S. 564, 580. We must bear in mind that here we are not dealing with a question of confiscation; that we are dealing, as was pointed out in *Smyth* v. *Ames*, 169 U. S. 466, 527, with a legislative question which can "be more easily determined by a commission composed of persons whose special skill, observation and experience qualifies them to so handle great problems of transportation as to do justice both to the public and to those whose money has been used to construct and maintain highways for the convenience and benefit of the people."

Mr. Justice Holmes and Mr. Justice Stone join in this opinion.

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[95] See Geological Survey: "Coal in 1923", pp. 528-535; Bureau of Mines: "Coal in 1924", p. 460; "Coal in 1925", pp. 394-398; "Coal in 1926", pp. 420-431, 443-461.

(12)

SUPREME COURT OF THE UNITED STATES.

Nos. 131 and 132.—October Term, 1928.

The St. Louis and O'Fallon Railway Company and Manufacturers' Railway Company, Appellants, 131 *vs.* The United States of America and The Interstate Commerce Commission. The United States of America and The Interstate Commerce Commission, Appellants, 132 *vs.* The St. Louis and O'Fallon Railway Company and Manufacturers' Railway Company.	Appeals from the District Court of the United States for the Eastern District of Missouri.

[May 20, 1929.]

Dissenting opinion of Mr. Justice Stone.

I agree with what Mr. Justice Brandeis has said and add a word only by way of emphasis of those aspects of the case which appear to me sufficient, apart from all other considerations, to sustain the finding of the Commission.

The report of the Interstate Commerce Commission is rejected and its order set aside on the sole ground that in a recapture proceeding under § 15 (a) of the Interstate Commerce Act, it has failed to consider present reproduction cost or value of appellant's property and so to "give due consideration to all the elements of value recognized by the law of the land for rate making purposes." No constitutional question is involved.

The Commission was called upon to value a railroad, with less than nine miles of main line track, which had been constructed prior to 1900. Much of its equipment was purchased before 1908, a considerable part being second hand. Its traffic was very largely dependent on the output of a few coal mines which it served.

In performing its task the Commission had before it the cost of reproduction new of appellant's structural property, estimated on the basis of 1914 unit prices, "with the knowledge that the costs

of reproduction so arrived at were not greatly different from the original costs." It had evidence of the actual cost of later additions and replacements, of the physical condition of the railroad and equipment, of the character, volume and sources of its traffic, of its working capital and revenues and expenses. It possessed, through its valuation department, special knowledge of the property of this carrier. Through its own experience it had the benefit of an expert knowledge of all the factors affecting value of railway property growing out of changes in methods of transportation, of improvement in transportation appliances and the consequent obsolescence of existing equipment, of improvement in methods of railroad construction and consequent reductions in cost. Although it had estimates of present construction costs in the form of index figures based on the comparative general price levels of labor and materials for 1914 and each of the recapture years, which it considered and discussed in its report, there was no evidence before it of the actual present cost of construction of this or any other railroad or any affirmative showing that, if appellant's road was to be built and equipped anew, competent railroad engineers would deem the present structure and equipment suitable for or adaptable to the economical and efficient management contemplated by the statute.

After stating that it had before it the evidence above outlined, including that of reproduction cost, and such other matters as the carrier desired to bring to its attention, the Commission added, "From this accumulated information we have formed our judgment as to the fair basic single sum values, not by the use of any formula, but after consideration of all relevant facts." That the Commission gave consideration to present reproduction costs appears not only from its own statement, but from the fact that it gave full effect to increased current market values in determining the value of land and to additions and betterments since June 30, 1914, taken at their cost less depreciation. In the light of those considerations which affect the present value of appellant's structural property which Mr. Justice Brandeis has mentioned, I cannot say that the Commission did not have before it the requisite data for forming a trustworthy judgment of the value of appellant's road or that it failed to give to proof of reproduction cost all the weight to which it was entitled on its merits. Had the Commission not

turned aside to point out in its report the economic fallacies of the use of reproduction cost as a standard of value for rate making purposes, which it nevertheless considered and to some extent applied, I suppose it would not have occurred to anyone to question the validity of its order.

I cannot avoid the conclusion that in substance the objection, now upheld, to the order of the Commission is not that it failed to consider or give appropriate weight to evidence of present reproduction cost of appellant's road, but that it attached less weight to present construction costs than to other factors before it affecting adversely the present value of the structural property. That this was the real nature of the objection voiced by the dissenting Commissioners seems to me apparent from their opinion. They seem to assume that as a result of *Southwestern Tel. Co. v. Public Service Comm.*, 262 U. S. 276, and other cases in this Court, the Commission as a matter of law may never, under any circumstances, find that the value of the structural part of a railroad does not exceed its fair value of an earlier date, if the Commission has before it evidence of later increased construction costs. They say "under the law of the land", in valuing a railroad under § 15a "we must accord weight in the legal sense to the greatly enhanced cost of material, labor and supplies" during the recapture periods. Weight in the legal sense is evidently taken to be not that accorded by an informed judgment but imposed by some positive rule of law.

Without discussion of the evidence and other data which received the consideration of the Commission, the opinion of this Court seems to proceed on the broad assumption that the evidence relied on, mere synthetic estimates of costs of reproduction, must so certainly and necessarily outweigh all other considerations affecting values as to require the order of the Commission to be set aside. In effect the Commission is required to give to such index figures an evidential value to which it points out they are not entitled when applied to railroad properties in general or to this one in particular, and this, so far as appears, without investigation of the soundness of the reasons of the Commission for rejecting them.

This Court has said that present reproduction costs must be considered in ascertaining value for rate making purposes. But it has not said that such evidence, when fairly considered, may not be outweighed by other considerations affecting value, or that any

evidence of present reproduction costs, when compared with all the other factors affecting value, must be given a weight to which it is not entitled in the judgment of the tribunal "informed by experience" and "appointed by law" to deal with the very problem now presented. *Illinois Central, &c. R. R.* v. *Interstate Commerce Commission*, 206 U. S. 441, 454. But if "weight in the legal sense" must be given to evidence of present construction costs, by the judgment now given we do not lay down any legal rule which will inform the Commission how much weight, short of its full effect, to the exclusion of all other considerations, is to be given to the evidence of synthetic costs of construction in valuing a railroad property. If full effect were to be given to it in all cases then, as the Commission points out in its report, the railroads of the country, valued by the Commission in 1920 at nineteen billion dollars, would have had in that year a reproduction value of forty billion dollars and we would arrive at the economic paradox that the value of the railroads may be far in excess of any amount on which they could earn a return. If less than full effect may be given, it is difficult for me to see how, without departure from established principles, the Commission could be asked to do more than it has already done—to weigh the evidence guided by all the proper considerations—or how, if there is evidence upon which its findings may rest, we can substitute our judgment for that of the Commission. Such, I believe, is the "due consideration" which the statute requires of "all the elements of value recognized by the law of the land for rate making purposes."

As I cannot say *a priori* that increased construction costs may not be more than offset by other elements affecting adversely the present value of appellant's property, and as there was evidence before the Commission to support its findings, I can only conclude that the judgment below should be affirmed. In any case, in view of the statement of the Commission that it considered all relevant facts, including the elements of value brought to its attention by the carrier, I should not have supposed that we could rightly set aside the present order without some consideration of the probative value of the evidence of present reproduction costs which the Commission discussed at length in its report.

Mr. Justice Holmes and Mr. Justice Brandeis concur in this opinion.